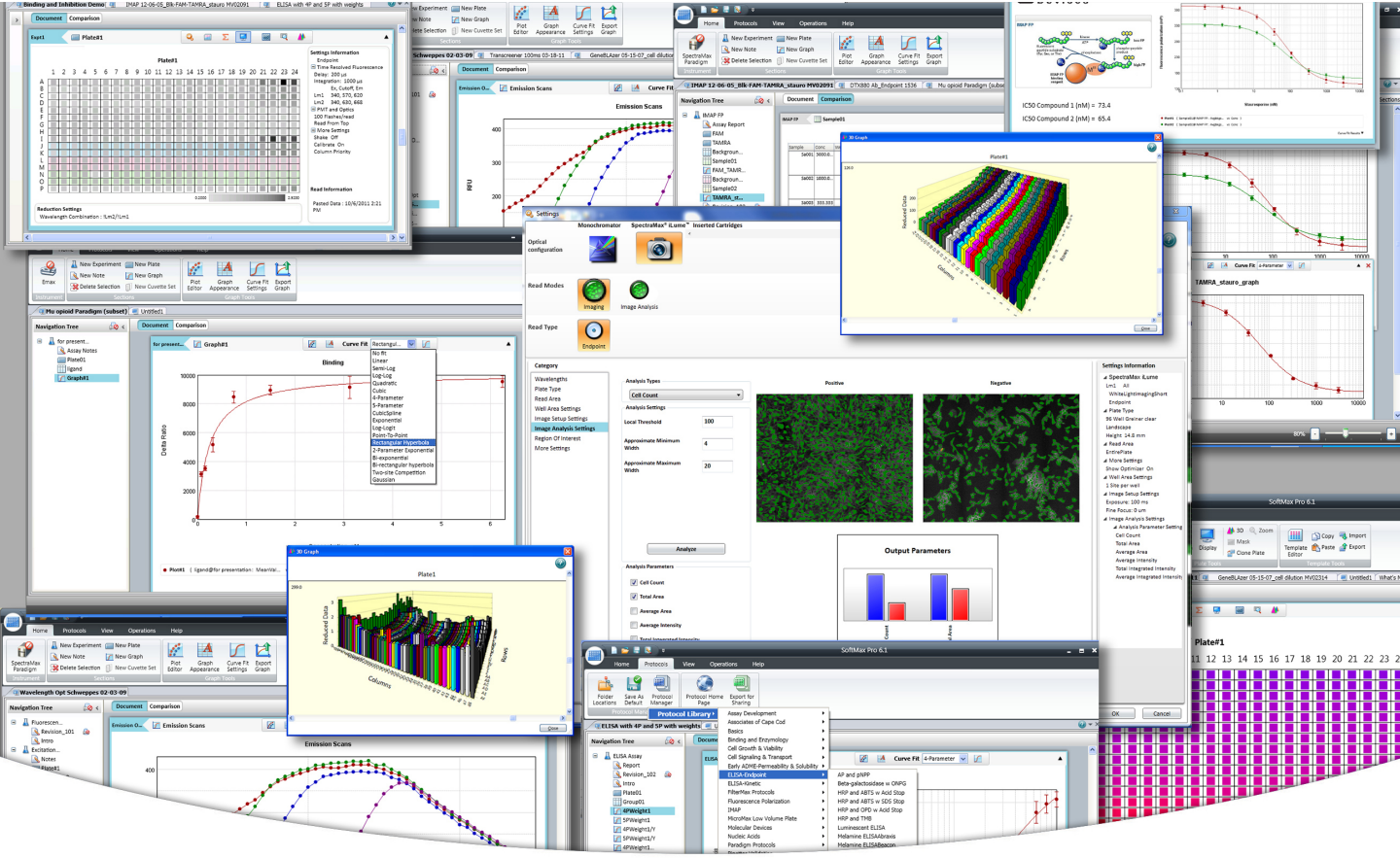

SoftMax® Pro Microplate Data Acquisition and Analysis Software

Version 6.3

Software Release Notes

Molecular Devices

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www.moleculardevices.com

CE

ISO 9001 REGISTERED COMPANY

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Patents: http://www.moleculardevices.com/productpatents

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Contents

SoftMax Pro Software General Information

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Introduction

SoftMax® Pro Microplate Data Acquisition and Analysis Software controls Molecular Devices® spectrophotometers, absorbance, luminescence, and fluorescence microplate readers, detection platforms, and imaging cytometers.

The following topics are included in this chapter:

Computer System Requirements

SoftMax Pro Software version 6 can be installed on a computer with the following system specifications.

Table 1-1: Minimum and Recommended System Requirements

Item	Minimum	Recommended
Processor	Single-core, 2 GHz or faster	Quad core or faster
Operating system	Windows XP, 32-bit (x86), with Service Pack 3 and .NET Framework 4.0 (.NET Framework 4.0 is installed automatically by the installer if necessary.)	Windows 7, 32-bit or 64-bit (x86 or x64)
Data connection	RS-232 serial port or USB 2.0 port (depending on the instrument)	For instruments that require an RS-232 serial port, you can use a USB 2.0 port with a Keyspan USB-to-serial adapter. Keyspan USB-to-serial adapters have been field tested and approved by Molecular Devices.
Memory	2 GB RAM	4 GB RAM If running on a virtual machine, Molecular Devices recommends at least 6 GB RAM. For automation, use at least 8 GB RAM.
Hard disk	500 MB of available space	1 GB of available space, or more
Graphics display	Graphics display adapter 1024 x 768 or higher-resolution display	32-bit graphics display with 256 MB video RAM 1280 x 1024 or higher-resolution display
Software installation and activation	CD/DVD drive Internet connection or external USB drive	CD/DVD drive Internet connection

Installing and using the software on the Windows 8 operating system is not supported at this time, since the software has not yet been validated on Windows 8.

Imaging Cytometer Computer System Requirements

The SpectraMax® MiniMax™ Imaging Cytometer requires additional minimum computer system specifications beyond those required for the standard SoftMax Pro Software installation.

Table 1-2:

Item	Requirement
Processor	Intel i5, 2.8 GHz, quad core or greater
Operating system	Windows 7, 64-bit (x64)
Data connection	Two (2) or more USB 2.0 ports
Memory	8 GB or more DDR3 SDRAM at 1333 MHz
Hard disk	500 GB or larger, 7200 RPM or faster hard disk with a 32 MB or more buffer
Graphics display	512 MB nVIDIA graphics display 1280 x 1024 or higher-resolution display
Software installation and activation	CD/DVD drive Internet connection or external USB drive

For optimum results, turn off all sleep and hibernation settings for the hard disk, the CPU, and the USB ports. Also, disable automatic Windows Updates. You can update Windows manually when the instrument is not being used by the software. See Required Settings on page 11.

Installing SoftMax Pro Software

Note: Molecular Devices recommends that you disable your anti-virus program before installing SoftMax Pro Software, as it might interfere with the installation process.

To install SoftMax Pro Software:

1. Insert the SoftMax Pro Software CD into the CD-ROM drive. The installation program starts automatically.
2. If the installation program does not start, navigate to your CD-ROM Drive and double-click **SoftMaxPro6.3Setup.exe**.
3. Select the edition of the SoftMax Pro Software that you need to install.
   - The **SoftMax Pro Standard Edition** supports most Molecular Devices microplate readers. For a complete list of the instruments supported by this release of the software, see Supported Instruments on page 14.
   - The **SoftMax Pro MiniMax Imaging Edition** includes support for the SpectraMax MiniMax Imaging Cytometer. This edition of the software requires the Windows 7, 64-bit operating system. For a complete list of computer requirements for this instrument, see Imaging Cytometer Computer System Requirements on page 7.
   - The **SoftMax Pro GxP Edition** supports using the software in a regulated environment.

Note: You must have the correct license for the edition of the software that you need to install.

4. Follow the on-screen instructions to finish installing the software.
5. Optionally, re-enable anti-virus programs.

Note: If you have anti-virus programs installed, Molecular Devices recommends that you add the SafeNet HASP License Manager Service (hasplms.exe) to the list of trusted applications in your anti-virus programs.

Uninstalling SoftMax Pro Software

Before uninstalling the program, make sure to backup your data and any saved files to a folder outside of the SoftMax Pro Software folder.

1. Click **Start > Control Panel**.
2. Click **Programs and Features**.

   In Windows XP, double-click **Add or Remove Programs**.
3. In the list that appears, click **SoftMax Pro 6.3** and then

   To uninstall the GxP version, click **SoftMax Pro 6.3 GxP**.
4. Click **Uninstall** or **Remove**.
5. Follow the on-screen instructions to finish uninstalling the program.

Note: This is the recommended method of removing SoftMax Pro Software from a Windows-based computer since it also removes related information from the Windows Registry.

Starting the Software

To start the software under normal conditions, wait for the connected instrument to complete its start-up sequence, and then double-click the **SoftMax Pro 6.3** icon on your desktop to start the program.

To start the program from the Windows Start menu, click **Start > All Programs > Molecular Devices > SoftMax Pro 6.3 > SoftMax Pro 6.3**.

For the GxP version, double click the **SoftMax Pro 6.3 GxP** icon or click **Start > All Programs > Molecular Devices > SoftMax Pro 6.3 GxP> SoftMax Pro 6.3 GxP**.

Note: When connecting to a SpectraMax® i3, SpectraMax® Paradigm®, or FilterMax® instrument for the first time, the latest firmware updates automatically install as needed.

Note: You can start the SoftMax Pro Software with or without an attached instrument. When no instrument is attached you cannot acquire data. To perform operations that require data you must be able to open an existing data file.

Registering the Software

The software product key is included with the SoftMax Pro Software CD package. The instrument serial number is located on a label affixed to the back of the instrument.

Activating Your Software License

When you first start the SoftMax Pro Software, the **Software License Activation** dialog appears. If you are already running a trial version of the software, click the **Help** tab in the ribbon and then click **Software License**.

To activate your SoftMax Pro Software license:

- If you have internet connectivity, type the Product Key in the field, click **Activate Online**, and then follow the on-screen instructions.
- If you do not have internet connectivity, click **Activate Offline** and then follow the on-screen instructions.

  To activate offline, you need your Product Key, a computer with internet connectivity, and a USB drive for transferring files between the computers.

  On the Internet-enabled computer, go to: https://smplicensing.moleculardevices.com

Required Settings

Always On Power Option

Allowing your computer to hibernate or turn off during data acquisition can interrupt the transfer of data from the instrument to the software and result in data loss.

For optimum results, turn off all sleep and hibernation settings for the hard disk, the CPU, and the USB ports. Also, disable automatic Windows Updates. You can update Windows manually when the instrument is not being used by the software.

You can set these options in Windows Control Panel.

1. Open **Control Panel**.
2. Click Hardware and Sound.
3. Under **Power Options**, click **Change when the computer sleeps**.
4. Click **Change advanced power settings**.
5. In the **Power Options** dialog, set **Hard disk > Turn off hard disk after** to **Never**.
6. Set **Sleep > Sleep after** to **Never**.
7. Set **Sleep > Hibernate after** to **Never**.
8. Set **USB settings > USB selective suspend setting** to **Disabled**.
9. Click **OK**.
10. Return to the home screen of **Control Panel**.
11. Click **System and Security**.
12. Under **Windows Update**, click **Turn automatic updating on or off**.
13. Under **Important Updates**, make sure that **Install updates automatically** is *not* selected. Any of the other options can be selected.
14. Click **OK**.
15. Close **Control Panel.**

Decimal Symbol Must be a Period

For the SoftMax Pro Software to properly parse or execute calculations, the regional options for the computer must use the period symbol (“.”) for the decimal symbol. This can be an issue if the if the language setting for the computer is something other than English.

To set custom regional settings, go to **Control Panel > Regional and Language Options**.

Installing USB Drivers in Windows 7

For some Windows 7, 64-bit operating system installations, automatic installation of the USB instrument driver for some instruments does not occur due to elevated security settings.

If the SoftMax Pro Software cannot connect to your instrument after installing the software, try shutting down the software and then restarting Windows.

If restarting Windows does not allow access to the instrument, then perform the following steps to install the driver:

1. Open **Control Panel**.
2. Click **Hardware and Sound**.
3. Under **Devices and Printers**, click **Device Manager**.
4. In Device Manager, double-click the unknown device with the yellow warning icon.
5. Click the **Driver** tab and then click **Update Driver**.
6. Click **Browse my computer for driver software**.
7. Click **Browse** and select the SoftMax Pro Software installation folder.

   The default installation path is:
   C:\Program Files (x86)\Molecular Devices\SoftMax Pro 6.3
8. In the Windows Security warning, click **Install this driver software anyway**.

Granting TCP/IP Access to MDC File Server

When using the SoftMax Pro GxP Software with MDC File Server in a Windows 7, 64-bit operating system, the Windows Firewall sometimes blocks user access to MDC File Server through TCP/IP.

To grant user access through TCP/IP, create a new inbound rule and a new outbound rule in the Windows Firewall Advanced Settings.

Accessing Windows Firewall Advanced Settings

1. Open **Control Panel**.
2. Click **System and Security**.
3. Click **Windows Firewall**.
4. In the left pane, click **Advanced settings** to open the **Windows Firewall with Advance Security** dialog.

Creating a New Inbound Rule

1. In left pane of the **Windows Firewall with Advance Security** dialog, click **Inbound Rules**.
2. In the right pane, click **New Rule**.
3. In the **New Inbound Rule Wizard**, click **Port**.
4. Click **Next**.
5. Click **TCP**.
6. Click **Specify local ports**.
7. Type **9001** in the field.
8. Click **Next**.
9. Complete the rest of the wizard according to your network configuration and access rules defined by your system administrator.

Creating a New Outbound Rule

1. In left pane of the **Windows Firewall with Advance Security** dialog, click **Outbound Rules**.
2. In the right pane, click **New Rule**.
3. In the **New Outbound Rule Wizard**, click **Port**.
4. Click **Next**.
5. Click **TCP**.
6. Click **Specify local ports**.
7. Type **9001** in the field.
8. Click **Next**.
9. Complete the rest of the wizard according to your network configuration and access rules defined by your system administrator.

Supported Instruments

User guides for each of the supported instruments are installed during the SoftMax Pro Software installation. You can view these user guides from the Windows Start menu at **Start > All Programs > Molecular Devices > SoftMax Pro 6.3 > Hardware User Guides**.

This release of the SoftMax Pro Software supports the following instruments:

- SpectraMax® i3 Multi-Mode Detection Platform
- SpectraMax® Paradigm® Multi-Mode Detection Platform
- VersaMax™ ELISA Microplate Reader
- SpectraMax® Plus 384 Absorbance Microplate Reader
- SpectraMax® M5 and M5e Multi-Mode Microplate Readers
- SpectraMax® M4 Multi-Mode Microplate Reader
- SpectraMax® M3 Multi-Mode Microplate Reader
- SpectraMax® M2 and M2e Multi-Mode Microplate Readers
- SpectraMax® 340PC 384 Absorbance Microplate Reader
- SpectraMax® 190 Absorbance Microplate Reader
- Gemini™ XPS Fluorescence Microplate Reader
- Gemini™ EM Fluorescence Microplate Reader
- FilterMax® F5 Multi-Mode Microplate Reader
- FilterMax® F3 Multi-Mode Microplate Reader
- DTX 800 and DTX 880 Multi-Mode Microplate Readers
- Vmax® Kinetic ELISA Microplate Reader
- Emax® Endpoint ELISA Microplate Reader
- StakMax® Microplate Handling System

Frequently Asked Questions

Can I install SoftMax Pro Software v6 on a computer that already has SoftMax Pro Software v5.4 or earlier installed?

Yes. SoftMax Pro Software v6 is installed independently of SoftMax Pro Software v5.4 or earlier and will not interfere with the operation of a previously installed version. This means, you can install two different versions on the same computer.

Note: Only one version of the software can be connected to an instrument at a time.

Can I open SoftMax Pro Software v5.x protocol and data files in SoftMax Pro Software v6?

SoftMax Pro Software v6 uses new file formats; *.spr and *.sprx for protocol files and *.sda and *.sdax for data files. You can still open SoftMax Pro Software v5.x files (*.pda, *.eda, *.ppr, and *.epr) directly in SoftMax Pro Software v6. In the Open dialog, you choose the target file types and SoftMax Pro Software v6 displays files you can open. You cannot, however, save files to the SoftMax Pro Software v5.x file format, nor can you open SoftMax Pro Software 6.0 files in SoftMax Pro Software v5.x.

Can I use the same formula (syntax) in SoftMax Pro Software v6 as SoftMax Pro Software v5.x?

Yes. SoftMax Pro Software v6 uses the same formula syntax as SoftMax Pro Software v5.x.

Can I run SoftMax Pro Software v6 on Apple MacOS?

Yes, SoftMax Pro Software v6 can be run on a virtual machine running Windows and a third-party tool such as VMWare Fusion. SoftMax Pro Software v6 cannot, however, run natively on the MacOS.

Can I use SoftMax Pro Software v6 without activation?

SoftMax Pro Software v6 can be used for 14 days after installation, and then it must be activated. You can activate up to four (4) different computers with a standard product key. Other multiple license and site licence product keys are also available.

SoftMax Pro GxP Software does not have a trial period, and must be activated before it can be used.

SoftMax Pro Software Version 6.3 Software Release Notes

2

Introduction

The SoftMax® Pro Microplate Data Acquisition and Analysis Software version 6.3 update is a minor release. The following is a summary of the changes incorporated in this revision as compared to version 6.2.2, the last general release of the SoftMax Pro Software.

New in SoftMax Pro Software v6.3

Support for the SpectraMax i3 Multi-Mode Detection Platform

The SpectraMax® i3 Multi-Mode Detection Platform is a monochromator-based, multi-mode detection platform.

The built-in read modes include:

- UV and Visible Absorbance (ABS)
- Fluorescence Intensity (FL)
- Luminescence (LUM)

For most read modes, endpoint, kinetic, multi-point well-scan, and spectrum microplate applications can be set up and run with the SoftMax Pro Software.

The read capabilities of the SpectraMax i3 Instrument can be upgraded with user-installable detection cartridges.

The SpectraMax® MiniMax™ Imaging Cytometer adds imaging capability to the SpectraMax i3 Instrument to visually inspect your sample and to run cell-based assays at cellular or whole-cell resolution. See Support for the SpectraMax MiniMax Imaging Cytometer on page 18.

Support for the SpectraMax MiniMax Imaging Cytometer

The SpectraMax® MiniMax™ Imaging Cytometer adds imaging capability to the SpectraMax® i3 Multi-Mode Detection Platform to visually inspect your sample and to run cell-based assays at cellular or whole-cell resolution. The cytometer uses solid-state illumination, a digital camera, a 4x objective lens, laser auto-focus, and auto-exposure to capture fluorescent or label-free images of a sample at the bottom of the microplate wells. The cytometer supports 96-well and 384-well, flat-bottom, clear-bottom microplates.

The measurement is primarily fluorescent with quantification of cell size, shape, area, and intensity. Label-free quantification is also supported through brightfield, transmitted light imaging and visual inspection of the image. The camera resolution in the SpectraMax MiniMax Imaging Cytometer is sufficient to determine the approximate shape of small 8 micron objects, such as blood cells.

To perform brightfield, transmitted-light imaging, you must install the SpectraMax i3 Platform Transmitted Light (TL) Detection Cartridge in the detection cartridge drawer.

Optimizing Your Computer for Image Acquisition

Acquiring images requires a large portion of computer memory and resources.

Before starting an image acquisition, you must save the data file in a location with enough capacity for the image files. Each acquired image file can be larger than 2 megabytes. Acquiring the image of a single site in each well of a 96-well microplate can generate 300 megabytes of image data. A 384-well microplate can generate 1 gigabyte of image data. For best results, save your data file on a secondary internal hard drive. You can use an external hard drive, but this can slow the data acquisition and is not recommended. Acquiring imaging files and saving them to a network location is not supported by Molecular Devices.

Before starting an image acquisition, minimize the demands on computer memory and resources by turning off all other programs. When theSoftMax Pro Software has limited access to computer memory and resources, image acquisition can take a long time. In some cases, images of some of the wells can be lost. For optimum results, turn off all sleep and hibernation settings for the hard disk, the CPU, and the USB ports. Also, disable automatic Windows Updates. You can update Windows manually when the instrument is not being used by the software.

New Curve Fits

The following curve fits have been added to the installed software.

- Brain Cousens

  This function is a generalization of the four-parameter logistic (corresponding to G=0) that can be used as a hormesis model for dose-response data. For example, an inhibitor curve shows an enhanced response over a low-dose range.

- 5P Alternate

  This is a re-parameterization of the standard five-parameter logistic, such that parameters B and C have the same interpretation as in the case of the four-parameter logistic. In particular, the EC50 value is given by C.

New Automation Features

New API Commands

- GetGroupNameAssignments

  Returns the group name assignments of the currently selected plate section.

- GetInstrumentStatus

  Returns the status of the currently connected instrument.

- GetTemperature

  Returns the incubator temperature of the currently connected instrument.

Multi-Threaded Event Handling

Automation events are now received by the automation client on a separate thread from the thread that handles command submission.

Excel VBA Macro Support

The SoftMax Pro Software Automation API can be accessed from Excel Visual Basic by using a tool called Excel-DNA. To learn more, go to http://exceldna.codeplex.com/.

SoftMax Pro Excel Workflows

The SoftMax Pro Excel workflows are designed to augment the industry-leading handling of Plate Format Data by the SoftMax Pro Software with Excel-based handling of List Format Data. You can use SoftMax Pro Excel workflows to run discontinuous kinetic reads, multiplexed reads, kinetic well scan reads, and temperature-triggered reads.

The SoftMax Pro Automation SDK is the underlying mechanism used by SoftMax Pro Excel workflows to access SoftMax Pro Software functionality. If you want to write your own workflows, you need to be familiar with the available Automation Commands. See the *SoftMax Pro Software Automation API Reference Guide*.

New Protocols

The following protocols have been added to the installed software.

ELISA-Endpoint

- Quantiferon-TB

  This new protocol contains guidelines and instrument settings to be used with the Quantiferon-TB Gold In Tube Kit. This protocol is suitable for readers capable of measuring OD at 450 nm and 620 nm.

Cell Growth & Viability

- MTS Cell Proliferation

  This new protocol contains guidelines and instrument settings for a colorimetric absorbance assay for determining the number of viable cells in proliferation or chemosensitivity assays. This protocol designed to be used with Promega products G5421, G5430, G5440, G1111, and G1112.

SpectraDrop Micro-Volume Microplates

- SpectraDrop DNA RNA Quant with Stnds

  This new protocol contains guidelines and instrument settings for quantitation of DNA and RNA using a Molecular Devices SpectraDrop Micro-Volume Plate. This protocol is suitable for readers capable of absorbance reads.

- SpectraDrop Protein Quant with Stnds

  This new protocol contains guidelines and instrument settings for quantitation of protein using a Molecular Devices SpectraDrop Micro-Volume Plate. This protocol is suitable for readers capable of absorbance reads (excluding the FilterMax instruments).

Modifications Made to SoftMax Pro Software v6.3

Plate Height Warning Option

To prevent damage to the SpectraMax i3 Multi-Mode Detection Platform, the Plate Height Warning appears as a reminder to make sure that the Plate Height for the microplate is defined correctly. The SoftMax Pro Options dialog contains a setting to prevent the Plate Height Warning from automatically appearing when you start a read. The Plate Height Warning automatically opens when you start a read if this check box is cleared.

Plate Eject After Read Option

The SoftMax Pro Options dialog contains a setting to prevent the microplate drawer from automatically opening after you finish a read. When this check box is cleared, the microplate drawer opens when a read completes. When this check box is selected, the microplate drawer remains closed when a read completes.

SoftMax Pro GxP Software Modifications

The following modifications were made to the SoftMax Pro GxP Software:

- Plate sections and Cuvette Set sections display information about the user who performed a read.
- Plate sections and Cuvette Set sections display information about the user who performed a paste operation.
- Printouts display information about the user who printed them.
- An Auto Read does not proceed after the user logs off.

Protocol Modifications

The following protocols have been modified.

Reader Validation-Cuvette Abs

- M Series Hellma

  This protocol was modified to correct the Photometric Accuracy specification (.006 to .005) and to correct the formula for Photometric Precision acceptability.

- Plus Hellma

  This protocol was modified to correct the Photometric Accuracy specification (.006 to .005) and to correct the formula for Photometric Precision acceptability.

SpectraDrop Micro-Volume Microplates

All protocols originally written for the MicroMax Low-Volume Plate have been renamed and move to the **SpectraDrop Micro-Volume Microplates** folder.

- SpectraDrop Abs DNA Quant

  This protocol was renamed from MicroMax Abs DNA Quant. It was also modified to correct the concentration calculation with dilution factor.

- SpectraDrop Abs DNA Quant (Paradigm)

  This protocol was renamed from MicroMax Abs DNA Quant (Paradigm). It was also modified to correct the concentration calculation with dilution factor.

- SpectraDrop Fluor DNA Quant

  This protocol was renamed from MicroMax Fluor DNA Quant. It was also modified to correct the concentration calculation with dilution factor.

- SpectraDrop Fluor DNA Quant (FilterMax)

  This protocol was renamed from MicroMax Fluor DNA Quant (FilterMax). It was also modified to correct the concentration calculation with dilution factor.
- SpectraDrop Fluor DNA Quant (Paradigm)

  This protocol was renamed from MicroMax Fluor DNA Quant (Paradigm). It was also modified to correct the concentration calculation with dilution factor.

TR-FRET

- HTRF Assay Optimization (M5e)

  This protocol was renamed from HTRF Assay Optimization.
- HTRF Standard Assay Europium (M5e)

  This protocol was renamed from HTRF Standard Assay Europium.
- HTRF Standard Assay Terbium (M5e)

  This protocol was renamed from HTRF Standard Assay Terbium.

Issues Addressed in SoftMax Pro Software v6.3

Right-Clicking Selected Text in a Notes Section Makes the Text Appear Deselected

Tracking ID: 4764

After selecting text in a Notes section and then right-clicking the selected text, the highlighting disappeared making the text appear deselected. Clicking an item in the context menu restored the highlighting of the selected text.

The text was still selected, but the visual appearance made it look deselected. For example, after clicking Copy in the context menu, the text that was selected was copied to the Clipboard.

Resolution:

The text remains highlighted after right-clicking to visually indicate that it is still selected.

Impact of fix:

This fix has no impact on current workflow or data.

The settings return to defaults after moving a MULTI or TUNE detection cartridge between the top and bottom drawer in a SpectraMax Paradigm instrument while the Settings dialog is open

Tracking ID: 8901

With the Settings dialog open, moving a MULTI or TUNE detection cartridge between the top and bottom drawers on a SpectraMax Paradigm instrument reset the settings to their defaults.

Resolution:

Setting definitions are retained regardless of the detection cartridge position. If a detection cartridge is in the incorrect drawer when the Settings dialog opens, a message appears.

Impact of fix:

This fix has no impact on current workflow or data.

In the SoftMax Pro GxP Software, Opening an Autosave-Generated File Opened the File with the Same Name as the Original File

Tracking ID: 9281

After using Autosave to generate a data file with a different name from the originating data file, opening the Autosave-generated file indicated that another file with the same name as the originating file had opened.

For example, If you had a file named Original.sdax and then used Autosave to generate a file named Data1.sdax, after you opened the Data1.sdax file, the software indicated that a file named Original.sdax was opened with the Autosaved data included.

Resolution:

After using Autosave to generate a data file with a different name from the originating data file, opening the Autosave-generated file indicates that a file with the same name as the autosaved file has opened.

For example, If you have a file named Original.sdax and then use Autosave to generate a file named Data1.sdax, after you open the Data1.sdax file, the software indicates that a file named Data1.sdax was opened with the Autosaved data included.

Impact of fix:

This fix has no impact on current workflow or data.

Issuing the SetInstrument Command Through the Automation Interface When No Data File or Protocol File is Active in the Workspace Generates an Error Message

Tracking ID: 9283

When there is no active data file or protocol file in the software workspace, using the automation interface to send a SetInstrument command generated an error message.

This could happen when the What's New tab is active in the workspace.

Resolution:

Issuing the SetInstrument command does not generate an error whether or not a data file or protocol file is active in the workspace.

Impact of fix:

This fix has no impact on current workflow or data.

When the PathCheck Technology is not Applied to a reduction, Erroneous Values Appear in Some Wells

Tracking ID: 9683

When the PathCheck technology was not applied during a reduction, some wells contained "Path?" instead of the correct numerical value.

Resolution:

When the PathCheck technology is not applied during a reduction, all wells display their correct values.

Impact of fix:

This fix has no impact on current workflow or data.

Attempting to Import a v5.x Data File That has Data Acquired with the PathCheck Technology, the Program Closes Unexpectedly

Tracking ID: 9821

The program closed unexpectedly when attempting to import a v5.x data file that contained data that was acquired using the PathCheck technology.

This issue was related to issue 9683.

Resolution:

The program successfully imports v5.x data files that contain data that was acquired using the PathCheck technology.

Impact of fix:

This fix has no impact on current workflow or data.

Using the InterpX Function with a Point-to-Point Curve Fit Gives an Incorrect Value

Tracking ID: 9921

In a graph with a Point-to-Point curve fit sometimes gave the wrong value for the InterpX function.

Resolution:

Using the InterpX function with a Point-to-Point curve fit gives the correct value.

Impact of fix:

This fix has no impact on current workflow or data.

When Running a Long-Term, High-Throughput Read, the Software Reports Running Out of Memory

Tracking ID: 9956

Running a high-throughput read over multiple days caused the software to report an out-of-memory condition.

Resolution:

A high-throughput run of 1000 microplates completes without incident.

Impact of fix:

This fix has no impact on current workflow or data.

Duplicate CommandComplete Events are Published by the Automation Server when ErrorEvents are Thrown Prior to Command Completion

Tracking ID: 9973

When an ErrorEvent occurs before CommandCompletion while using the automation interface, duplicate CommandComplete events were published.

Resolution:

Single CommandComplete events are published by the automation server for when ErrorEvents are thrown prior to CommandCompletion.

Impact of fix:

This fix has no impact on current workflow or data.

Duplicate InstrumentStatus Events are Generated

Tracking ID: 9975

When the instrument status changed, two InstrumentStatus events were generated without a corresponding duplicate status change. For example, two consecutive Busy events were often generated.

Resolution:

InstrumentStatus events are generated only once after each status change.

Impact of fix:

This fix has no impact on current workflow or data.

Duplicate Error Events are Generated for the SelectNextPlateSection Command

Tracking ID: 9977

When the automation command SelectNextPlateSection() fails because there are no more plate sections, the automation server publishes two Error events.

Resolution:

When the automation command SelectNextPlateSection() fails because there are no more plate sections, the automation server publishes one Error event.

Impact of fix:

This fix has no impact on current workflow or data.

A Communication Error When the Automation Server is Trying to Publish Causes the Software to Close Unexpectedly

Tracking ID: 9979

When the automation server tried to publish an event and a communication error occurred, the software closed unexpectedly.

Resolution:

Communication errors when the automation server tries to publish an event do not cause the software to close unexpectedly.

Impact of fix:

This fix has no impact on current workflow or data.

When the SelectSection Command Targets a Section That Does Not Exist, the Automation Interface Becomes Unresponsive

Tracking ID: 9981

When the Section targeted by the SelectSection command did not exist in the experiment, the automation interface became unresponsive.

Resolution:

An Error event is published when the SelectSection command targets a section that does not exist.

Impact of fix:

This fix has no impact on current workflow or data.

The SetTemperature Command Accepts Invalid Values

Tracking ID: 9983

When a temperature value that is out-of-range for the instrument was passed to the SetTemperature command, the value was accepted.

Resolution:

Out-of-range temperature values are rejected by the SetTemperature automation command which generates Error events when they are detected.

Impact of fix:

This fix has no impact on current workflow or data.

The SaveAs() Automation Command Does Not Overwrite Data Files

Tracking ID: 9987

When the SaveAs automation command tries to overwrite an .sda file it fails and publishes an Error event.

Resolution:

When the SaveAs automation command tries to overwrite an .sda file it succeeds.

Impact of fix:

This fix has no impact on current workflow or data.

Cannot Use The Temperature Control on a SpectraMax Paradigm Instrument After an EEPROM Update

Tracking ID: 10221

After performing an EEPROM update on an older SpectraMax Paradigm instrument, the temperature control was no longer functional.

Resolution:

Temperature control is functional after updating the EEPROM on a SpectraMax Paradigm instrument.

Impact of fix:

This fix has no impact on current workflow or data.

An Exception Occurs When Exporting Data Acquired by the TUNE Detection Cartridge

Tracking ID: 10227

Attempting to export data that was acquired using a TUNE detection cartridge caused the software to publish an exception.

Resolution:

Data acquired using a TUNE detection cartridge can be exported successfully.

Impact of fix:

This fix has no impact on current workflow or data.

For FilterMax Instruments, the GetDrawerStatus Command Returns the Incorrect Status

Tracking ID: 10311

After issuing a GetDrawerStatus automation command for a FilterMax instrument, the returned status did not always match the actual drawer status.

Resolution:

The GetDrawerStatus automation command returns the correct status of the drawer for FilterMax instruments.

Impact of fix:

This fix has no impact on current workflow or data.

MakeErr Result Displays “Ranged” in Wells That Should Display “Masked”

Tracking ID: 10362

The MakeErr result that should display as “Masked” in microplate wells displayed “Ranged” instead.

Resolution:

The “Masked” result displays properly.

Impact of fix:

This fix has no impact on current workflow or data.

The Plate Legend Displays Incorrect Information for an AlphaScreen Read After Saving, Closing, and Re-Opening the File

Tracking ID: 10746

After saving, closing, and re-opening a file that uses the AlphaScreen read mode, the file displayed incorrect information in the legend of the Plate section.

Resolution:

The legend of the Plate section displays the correct Information for an AlphaScreen read after saving, closing, and re-opening the file.

Impact of fix:

This fix has no impact on current workflow or data.

A Newly Created Unknowns Group Table Shows Errors

Tracking ID: 10995

After creating a new group in the Template Editor for Unknowns, the Group table displayed errors in the Results column.

Resolution:

The Results column of the group table appears empty after creating a new Unknowns group.

Impact of fix:

This fix has no impact on current workflow or data.

For the SoftMax Pro GxP Software, No Audit Point is Generated for Instrument Calibration

Tracking ID: 11048

After performing an instrument calibration using the SoftMax Pro GxP Software. no audit point was generated for the calibration.

Resolution:

The SoftMax Pro GxP Software creates an audit point after a user performs an instrument calibration.

Impact of fix:

This fix has no impact on current workflow or data.

The Formula System is Case-Sensitive

Tracking ID: 11086

The string comparison of formulas in the formula system were case-sensitive.

Resolution:

Formulas are no longer case-sensitive.

Impact of fix:

This fix has no impact on current workflow or data.

Attempting to Save a Converted Protocol File as a New Data File, the Save As Dialog Displays the Original Data File Name

Tracking ID: 11195

When a saved data file is saved as a protocol file and then the protocol file is opened and saved as a new data file, the software attempts to save the new data file with the same name as the original data file.

Resolution:

After opening a protocol file that was converted from an existing data file, attempting to save it as a new data file displays no file name in the Save As dialog, requiring the user to type a name for the file.

Impact of fix:

This fix has no impact on current workflow or data.

Restarting the Software After Issuing a CloseDocument or CloseAllDocuments Automation Command the Software Opens in Data Recovery Mode

Tracking ID: 11301

After issuing the CloseDocument or CloseAllDocuments automation command, the automatically generated recovery files were not removed causing the software to incorrectly open in data recovery mode.

Resolution:

After issuing the CloseDocument or CloseAllDocuments automation command, the automatically generated recovery files are removed allowing the software to open in normally.

Impact of fix:

This fix has no impact on current workflow or data.

In the SoftMax Pro GxP Software, Issuing a FileOpen Automation Command Fails After a Successful Logon

Tracking ID: 12302

When running the SoftMax Pro GxP Software in automation mode and successfully logging on with the Logon command, issuing a FileOpen command failed to open the target file.

Resolution:

When running the SoftMax Pro GxP Software in automation mode, the FileOpen command succeeds if a Logon command has been successful, but fails is no user is logged on.

Impact of fix:

This fix has no impact on current workflow or data.

Cannot Import Some Data Files Acquired with SoftMax Pro Software v5.2

Tracking ID: 12484

Attempting to import data acquired with SoftMax Pro Software v5.x sometimes fails with the message, “This file cannot be opened because it contains read settings for an instrument model that is not supported.”

This was due to an issue in v5.2 that incorrectly identified the instrument used to acquire the data. This issue was resolved for later versions of the software.

Resolution:

Data acquired with SoftMax Pro Software v5.2 can be imported, provided that the actual instrument that was used to acquire the data is supported in v6.x.

Impact of fix:

This fix has no impact on current workflow or data.

Known Issues in SoftMax Pro Software v6.3

The Last Line of a Notes Section Does not Print

Tracking ID: 4762

If a Notes section has a long description, the last line of text might get cut off when printed.

Planned Resolution:

Improving page-end detection during printing is in the product backlog for future development.

Import From v5.x Changes µ to m

Tracking ID: 10022

After importing from a v5.x file, the font changes the µ symbol to a lower-case m. This can cause confusion in measurements. For example, 300 µL is imported as 300 mL.

Planned Resolution:

Improving font detection during a legacy-file import is in the product backlog for future development.

Covered Area and Expression in Image measurements are Incorrect for a Region of Interest That Spans a Single Row or Column of Sites

Tracking ID: 12340

After selecting a region of interest that covers area in only one row or column of a multi-site acquisition, the Covered Area and Expression in Image measurements are incorrect.

For example, in a 4-site acquisition, selecting a region of interest that coverers only the area in two of the sites across a row or column generates incorrect data for the Covered Area and Expression in Image measurements.

Planned Resolution:

Generating accurate data for a region of interest that includes only the area in one row or column of a multi-site acquisition is in the product backlog for future development.

Cannot Detect More Than One SpectraMax i3 or SpectraMax Paradigm Instrument

Tracking ID: 12461

With more than one SpectraMax i3 or SpectraMax Paradigm instrument connected to the same computer, the SoftMax Pro Software can detect only one of the instruments.

There are two methods to work around this issue:

- Power up only the instrument that you want to have the SoftMax Pro Software detect and leave any other instruments powered down.
- Select each instrument using separately installed versions of the SoftMax Pro Software. This method requires that the older version of the software supports the instrument that you want to detect.

Planned Resolution:

Detecting more than one SpectraMax i3 or SpectraMax Paradigm instrument connected to the same computer is in the product backlog for future development.

The Estimated Minimum and Maximum Object Size Settings Do Not Include the Smallest and Largest Objects in an Acquired Image

Tracking ID: 12497

For Cell Proliferation and Marker Expression analysis types in the Image Analysis Settings, the size estimate sometimes generates a minimum object size that is larger than the smallest object in the acquired image, or a maximum object size that is smaller than the largest object.

To work around this issue, manually type values in the fields:

- To include objects smaller than the estimated minimum, type a smaller value in the minimum size field.
- To include objects larger than the estimated maximum, type a larger value in the maximum size field.

The full size range that can be available for analysis in the SoftMax Pro Software is 0 µm to 5-million µm. Molecular Devices recommends that you do not use a maximum object size of less than 8 µm.

Planned Resolution:

Improved estimation of minimum and maximum object sizes for an acquired image is in the product backlog for future development.

In an Acquired Image, Objects within a Large Contiguous Ring Object are Included as Part of the Ring

Tracking ID: 12498

If an image has a large object, such as a group of confluent cells, that forms a contiguous ring, then all other objects, such as cells or colonies, inside that ring are linked together with that larger object. This can lead to anomalous results if you are looking at cell proliferation or growth into an area that is surrounded by confluent cells.

To work around this issue, you can export the acquired image to a different analysis tool.

Planned Resolution:

Detecting smaller objects within a large contiguous ring object is in the product backlog for future development.

Entering a Maximum Object Width to Include Objects Less Than Three Pixels Wide Can Generate Erroneous Data

Tracking ID: 12499

For a Cell Count image analysis, entering a maximum object width that includes objects that are less than three pixels wide can drastically change the thresholding and object segmentation. This can affect the object measurements and introduce error into the data.

Molecular Devices recommends that you do not use a maximum object size of less than 8 µm.

Planned Resolution:

Reducing erroneous data from entering an object size that is too small for the camera resolution is in the product backlog for future development.

Selected Objects are Sometimes Eliminated from the Analysis When Using the Set Range by Clicking on Objects Feature

The size and intensity estimates generated by the software after using the **Set Range by Clicking on Objects** feature sometimes eliminates objects that were clicked.

To work around this issue, manually type values in the fields after you finish clicking on objects in the images until you achieve the desired results.

Planned Resolution:

Improved estimation of size and intensity values when using the **Set Range by Clicking on Objects** feature is in the product backlog for future development.

Known Issues in Previous Releases of SoftMax Pro Software 6

For the known issues reported in the release notes for previous releases, see the following topics:

- Known Issues in SoftMax Pro Software v6.2.2 on page 56
- Known Issues in SoftMax Pro Software v6.2.1 on page 61
- Known Issues in SoftMax Pro Software v6.2 on page 81
- Known Issues in SoftMax Pro Software v6.1 on page 103
- Known Issues in SoftMax Pro Software v6.0 on page 113

SoftMax Pro Software Version 6.2.2 Software Release Notes

3

Introduction

The SoftMax® Pro Microplate Data Acquisition and Analysis Software version 6.2.2 update is a minor release. The following is a summary of the changes incorporated in this revision as compared to version 6.2.1, the last general release of the SoftMax Pro Software.

New in SoftMax Pro Software v6.2.2

Support for GxP Features

SoftMax Pro GxP Microplate Data Compliance Software extends SoftMax Pro Software into regulated laboratories working under GMP, GLP, and 21 CFR Part 11 guidelines for secure electronic records. SoftMax Pro GxP Software provides a method for electronically signing data files, and also automatically maintains a document-based audit trail for electronic records. This audit trail preserves user actions and modifications for review even after microplate data is collected and analyzed.

This version of the software is compatible with the GxP Admin Software versions 2.x, allowing SoftMax Pro GxP Software version 5.x users to continue to use their current User Accounts file after upgrading to SoftMax Pro GxP Software version 6.2.2. Also, SoftMax Pro GxP Software version 6.2.2 can open the *.epr and *.eda files generated in SoftMax Pro GxP Software versions 4.x and 5.x.

The following topics summarize the GxP-related changes incorporated in this revision as compared to SoftMax Pro GxP Software version 5.4, the last release of the SoftMax Pro Software with GxP support.

New GxP Audit Points

The following new audit points have been added to the GxP audit trail:

- Cloning a Plate section
- Logging off with the software still running
- Logging on after logging off with the software still running
- Saving data through the AutoSave feature
- Selecting a user accounts database
- Moving a Group column
- Changing AutoRead settings

New Statements Dialog

Statements are now in a separate dialog instead of being displayed as a section in the experiment. You can access the Statements dialog from the GxP tab in the ribbon or by clicking the statements status button in the upper-right corner of the work area.

Changed Permission Controls

The following changes were made to the user permissions that can be set with the GxP Admin Software:

- The permission to create a new Notes section is now controlled with the **Edit Notes Text** permission.
- The permission to change the appearance of Notes text is now controlled with the **Edit Notes Text** permission.
- The permission to delete a cuvette from a Cuvette Set section is now controlled with the **Overwrite Plate/Cuvette Data** permission.
- The permission to paste samples in the template editor is no longer controlled with the **Edit Sample and Group** permission. It is still controlled with the **Assign Plate Layouts** and **Add/Delete Groups** permissions.
- The permission to copy and paste a plate template is no longer controlled with the **Add/Delete Groups** permission. It is still controlled with the **Assign Plate Layouts** permission.
- The permission to delete an experiment is no longer controlled with the **Save Data Files** permission. However, disabling the **Save Data Files** permission prevents the user from saving an altered file.

Other GxP Enhancements

The following modifications were made to GxP features:

- The Audit Trail reports the time of day of a Guest log on.
- The name of the new section is included in the audit point when a user creates a new section.
- The audit point for starting or stopping a read includes details about the instrument, including the installed cartridges in a SpectraMax Paradigm instrument and the installed filter slides in a FilterMax instrument.
- Column names are included in the audit point for editing Group settings.
- Column names are included in the audit point for pasting a plate template.
- Additional details have been added to the audit point for editing a plate template.
- The audit point for creating a statement no longer contains an Experiment name.
- The Account Information dialog lists the number of days left for offline-file availability.
- A user defined with no permissions can log on and then view and print files like a Guest log on.
- Adding, modifying, signing, and removing signatures for statements can be performed through the automation interface.

New Protocols

The following protocols have been added to the installed software.

MicroMax Low Volume Plate

- Fluorescent DNA Quant (FilterMax)

  This new protocol contains guidelines and instrument settings for fluorescent quantitation of DNA using the µMax low-volume plate on FilterMax readers.
- Fluorescent DNA Quant (Paradigm)

  This new protocol contains guidelines and instrument settings for fluorescent quantitation of DNA using the µMax low-volume plate on the SpectraMax Paradigm reader.
- Fluorescent DNA Quant

  This new protocol contains guidelines and instrument settings for fluorescent quantitation of DNA using the µMax low-volume plate on SpectraMax M-series and Gemini readers with fluorescence detection mode.

Trending

A **Trending** folder has been added that contains protocols designed to work with LabSpeed Data Management Software for extracting desired data. The following protocols are included in this folder:

- Control Charting - Levey-Jennings
- Trending - Curve Fit Parameters
- Trending - EC50
- Trending - IC50
- Trending - LLD
- Trending - LOQ and LLD
- Trending - LOQ
- Trending - Relative Potency
- Trending - Sample and Assay Evaluation
- Trending - Signal Window (SW)
- Trending - ULD

Modifications Made to SoftMax Pro Software v6.2.2

Protocol Modifications

The following protocols have been modified.

MicroMax Low Volume Plate

- MicroMax DNA Quantitation (Paradigm)

  This protocol was revised to clarify the relationship between spacer height and sample volume. Text was added about the Concentration Factor and a reminder in the group tables
- MicroMax DNA Quantitation

  This protocol was revised to clarify the relationship between spacer height and sample volume. Text was added about the Concentration Factor and a reminder in the group tables

Paradigm Protocols

- HTRF Assay Optimization (Paradigm)

  This protocol was revised to increase the number of pulses to 30, as recommended by Cisbio and our applications team. The protocol was renamed to add “(Paradigm)” to the end of the name.
- HTRF Reader Control (Paradigm)

  This protocol was revised to increase the number of pulses to 30, as recommended by Cisbio and our applications team. The protocol was renamed to add “(Paradigm)” to the end of the name.
- HTRF Standard Assay (Paradigm)

  This protocol was revised to increase the number of pulses to 30, as recommended by Cisbio and our applications team. The protocol was renamed to add “(Paradigm)” to the end of the name.

Issues Addressed in SoftMax Pro Software v6.2.2

Minimum kinetic interval might be larger than necessary

Tracking ID: 3924

If the number of flashes was modified in the **Settings** dialog, the minimum kinetic interval might not have changed, even though the instrument timing was affected by this parameter.

Resolution:

The calculation method for estimating the minimum kinetic interval has been adjusted to render a more accurate estimate of the interval.

Impact of fix:

Kinetic protocols that were written in an older version of SoftMax Pro might need to be updated to correct the kinetic interval. Otherwise, this fix has no impact on current workflow or data.

Reduced data or data with blanks applied are pasted as raw data from the copied plate

Tracking ID: 4783

After copying data from a plate with reduced data or data with blanks applied, the raw data were pasted instead of the reduced or blanked data.

Resolution:

Pasted data match the copied data from the plate section.

Impact of fix:

If you are using automated scripts that expect copying of only raw data, these scripts might need to be updated to match the new behavior. Otherwise, this fix has no impact on current workflow or data.

For the FilterMax instrument, the minimum kinetic interval is sometimes underestimated

Tracking ID: 4809

When setting up a kinetic read for a FilterMax instrument, sometimes the minimum kinetic interval was underestimated.

Resolution:

The calculation method for estimating the minimum kinetic interval has been adjusted to render a more accurate estimate of the interval.

Impact of fix:

Kinetic protocols for a FilterMax instrument that were written in an older version of SoftMax Pro might need to be updated to correct the kinetic interval. Otherwise, this fix has no impact on current workflow or data.

In some cases, only a partial set of data is pasted into Excel from a copied plate or cuvette set

Tracking ID: 5825

After copying data from a plate or cuvette set, the data pasted into Excel contained only part of the data from the plate or cuvette set in some cases.

Resolution:

All displayed data from the copied plate or cuvette set section are pasted into Excel.

Impact of fix:

This fix has no impact on current workflow or data.

New plots do not match the experiment, group, x-axis, and y-axis to the currently selected plot

Tracking ID: 5827

Adding a new plot in the Plot Editor dialog reset the experiment, group, x-axis, and y-axis instead of matching the currently selected plot.

Resolution:

New plots duplicate the attributes from the selected plot.

Impact of fix:

This fix has no impact on current workflow or data.

Locked Notes sections can be edited in GxP version

Tracking ID: 6125

After locking a Notes section and then saving, closing, and opening the data file, the previously locked Notes section was editable.

Resolution:

Notes sections cannot be edited until after they are unlocked.

Impact of fix:

This fix has no impact on current workflow or data.

A GxP data file is accepted as valid after it is hacked and altered outside of the SoftMax Pro GxP Software

Tracking ID: 6126

After a data file is hacked and altered, the software did not detect that alterations were made to the data file and accepted the data file as valid.

Resolution:

Detected alterations are recorded in the Audit Trail. Users are notified of the alteration each time the data file is opened.

Impact of fix:

If data files are altered outside of the software, the data and file are no longer considered valid. When the software and data files are used properly, this fix has no impact on current workflow or data.

For the Vmax Instrument, the shaking time was not properly factored in for the minimum kinetic interval

Tracking ID: 6504

When calculating the minimum kinetic interval for the Vmax instrument, the software did not properly factor in the shaking time.

Resolution:

Shaking time is included in the minimum kinetic interval calculation.

Impact of fix:

This fix has no impact on current workflow or data.

AutoSave with Overwrite File selected incorrectly overwrites older data files

Tracking ID: 6523

When using Overwrite File during an AutoSave, the software overwrote a previously saved file that had the same name.

Resolution:

After the first read completes in a protocol, AutoSave creates a new data file. While this data file is still open, AutoSave overwrites the data file on each subsequent save if Overwrite File is set.

Impact of fix:

This fix has no impact on current workflow or data.

Reduction settings are not retained when the Template Editor is opened and closed or when that document saved, closed, and reopened

Tracking ID: 6816

After editing the End Time in the Reduction dialog, the setting reverted to the previous End Time setting after opening and closing the Template Editor or after saving the file and then closing and opening it.

Resolution:

All settings made in the Reduction dialog are retained after the Template Editor is opened and closed, and after the file is saved, closed, and reopened.

Impact of fix:

This fix has no impact on current workflow or data.

Incorrect default integration time for the HTRF detection cartridge

Tracking ID: 7111

For the SpectraMax Paradigm instrument, the default integration time for the HTRF detection cartridge was set to 0.2 instead of 0.5.

Resolution:

The default integration time for the HTRF detection cartridge is set to 0.5.

Impact of fix:

This fix has no impact on current workflow or data.

Error message appears regarding plate depth when reading Costar 1536-well plate using a SpectraMax Paradigm instrument

Tracking ID: 7210

When attempting to read a Costar 1536-well plate with a SpectraMax Paradigm instrument, an error message appeared indicating that the current microplate definition is invalid due to well depth.

Resolution:

The plate definitions for the Costar 1536, the 1536 Well Standard clrbtm, and the Corning 1536 (3728) are set to 10.4 mm to match the specifications of the manufacturers. The error message no longer appears.

Impact of fix:

This fix has no impact on current workflow or data.

Changes not saved when using Save As to overwrite the current file

Tracking ID: 7623

After making changes to a file and then using Save As to save the data in the same file, the changes were not saved. Closing the file prompted the user to save the file again, so changes were not lost unless the user clicked No.

Resolution:

The software overwrites the open file when saving changes using the Save As feature.

Impact of fix:

This fix has no impact on current workflow or data.

Reduced line is not displayed in zoomed well when kinetic reduction is set to Slope

Tracking ID: 7733

After zooming a well in a kinetic plate with the reduction set to Slope and then clicking Show Reduced, the reduced line did not display in the zoomed well.

Resolution:

The reduced line is displayed in the zoomed well when the reduction is set to Slope.

Impact of fix:

This fix has no impact on current workflow or data.

No validation check for maximum kinetic interval

Tracking ID: 8124

A kinetic read could be created that had a longer maximum kinetic interval that is allowed by the instrument firmware with no indication to the user that the interval was out of range.

Resolution:

If the kinetic interval in a kinetic read is set to a value beyond the maximum allowed by the instrument, the error condition is indicated in the Settings dialog.

Impact of fix:

This fix has no impact on current workflow or data.

Custom read height value is not duplicated in a new plate section

Tracking ID: 8215

After setting a custom read height for a plate and then creating a new plate section, the read height value in the new plate section was set to the default read height instead of the custom value from the selected plate section.

Resolution:

When creating a new plate section, the new plate section has the same read height value as the selected plate section.

Impact of fix:

This fix has no impact on current workflow or data.

Cutting group columns does not place cut columns on clipboard after previous copy of group columns

Tracking ID: 8273

After copying and pasting group columns, performing a cut-and-paste pastes the previously copied group columns instead of the more recently cut group columns.

Resolution:

Copy and cutting group columns places the copied or cut group columns on the Windows clipboard so that the last item copied or cut can be pasted.

Impact of fix:

This fix has no impact on current workflow or data.

The program closes unexpectedly when a single bracket or parenthesis is used in the column name in the Group Settings dialog

Tracking ID: 8298

In the Group Setting dialog, typing a single bracket “[” or parenthesis “(” in a column name caused the program to close unexpectedly.

Resolution:

Typing a single bracket or parenthesis in a group column name does not cause the program to close unexpectedly.

Impact of fix:

This fix has no impact on current workflow or data.

The column headers do not line up with their columns after exporting a Group table containing a Sample Descriptor column with units

Tracking ID: 8656

After exporting a group table that contains a Sample Descriptor column with units, the column headers did not align properly with their columns.

Resolution:

Column headers in the export file align with their respective columns.

Impact of fix:

This fix has no impact on current workflow or data.

Pre-reduction calculations are not applied to the exported data from a cloned plate

Tracking ID: 8791

After cloning a plate section and adding a plate blank to the cloned plate, the exported data from the cloned plate match the data from the original plate instead of the cloned plate.

Resolution:

Data from original plates and cloned plates are exported independently so that the exported data match the data appearing in each plate.

Impact of fix:

This fix has no impact on current workflow or data.

In Automation mode, protocol files cannot be saved as protocol files

Tracking ID: 8842

When using the Save As feature in Automation mode, only data files were allowed to be saved. Protocol files could not be saved as protocol files in Automation mode.

Resolution:

Both data files and protocol files can be saved in Automation mode.

Impact of fix:

If you are using the Save As command in automated scripts, these scripts might need to be updated to include the desired file extension in the file name. Otherwise, this fix has no impact on current workflow or data.

Pasting summaries that were copied from a closed file pastes non-summary information

Tracking ID: 8879

After copying summaries from a file and then closing the file, the software allows pasting summaries in the Notes section of another file, but the pasted information is not from the copied summaries.

Resolution:

After closing a file that contained copied summaries, pasting is disabled in the Notes section until another item is copied to the clipboard.

Impact of fix:

This fix has no impact on current workflow or data.

In some cases, the software does not detect a connected instrument

Tracking ID: 8895

On computers with multiple devices connected to COM ports, the software failed to detect a connected instrument after opening the Instrument Connection dialog.

Resolution:

The COM port polling method was changed to ensure that all COM ports are checked for a connected instrument.

Impact of fix:

This fix has no impact on current workflow or data.

Vmax and Emax instruments share filter configurations when they should be independent

Tracking ID: 8914

Adding, changing or removing filters in a Vmax instrument affected the filter configuration for an Emax instrument. Similarly, changes made to the filter configuration of an Emax instrument affected the filter configuration of a Vmax instrument.

Resolution:

Filter configurations for Vmax and Emax instruments are saved independently.

Impact of fix:

This fix has no impact on current workflow or data.

The software displays an exception message when importing a plate type from a file that does not match the expected file format

Tracking ID: 8929

Attempting to import a plate type from a file that does not match the expected format caused an exception message to appear.

Resolution:

The exception message no longer appears.

Impact of fix:

This fix has no impact on current workflow or data.

Protocol file names are truncated after the first period when the name contains more than one period

Tracking ID: 8930

After saving a protocol file with a name that has more than one period, the protocol appears in the Protocol Library with the name ending before the first period.

Resolution:

Periods in protocol file names are included in the protocol name.

Impact of fix:

This fix has no impact on current workflow or data.

In a SpectraMax Paradigm instrument, only partial well scan data appear in each well for an interrupted read

Tracking ID: 8932

After interrupting a well scan read on a SpectraMax Paradigm instrument and then closing and opening the data file, each of the wells displayed only part of the collected data for that well.

Resolution:

All collected data appear in each well where the data were collected.

Impact of fix:

Data files with partial well scan reads on a SpectraMax Paradigm instrument from an earlier version of the software might have incorrect data for each well. Otherwise, this fix has no impact on current workflow or data.

The software fails to start if Internet Explorer version 8 or earlier is set to offline mode

Tracking ID: 9001

If the computer has Internet Explorer version 8 or earlier set to offline mode and then the user attempts to start the SoftMax Pro Software, an error message appears and the software fails to start.

Resolution:

On startup, the software detects if Internet Explorer version 8 or earlier is set to offline mode. If so, the software opens without error.

Impact of fix:

This fix has no impact on current workflow or data.

The NewDocument command in the automation interface does not open the default protocol

Tracking ID: 9095

After issuing the NewDocument command through the automation interface, the new document that opens in the software did not contain the values and information from the default protocol.

Resolution:

The default protocol opens in the software after issuing the NewDocument command through the automation interface.

Impact of fix:

This fix has no impact on current workflow or data.

The program sometimes closes unexpectedly when string concatenation of lists of strings is used in a formula

Tracking ID: 9187

When a formula used string concatenation of lists of strings, the result appeared blank. When the software attempted to recalculate formulas (such as by the user clicking Recalculate or through automatic recalculation), this sometimes caused the program to close unexpectedly.

Resolution:

The results are displayed properly for formulas that use string concatenation of lists of strings. Recalculation does not cause the program to close unexpectedly.

Impact of fix:

This fix has no impact on current workflow or data.

The software displays an exception message when the linked file for an image in a Notes section is deleted or renamed

Tracking ID: 9244

If an image was placed in a Notes section and then the linked image file was deleted or renamed, then when the protocol or data file attempted to verify the link (such as when the file was opened or the software automatically refreshed the user interface), the software displayed error messages and an exception message.

Resolution:

If a linked image file is renamed or deleted, the Notes section appears in the protocol or data file without displaying the linked image. The software does not display an error message or exception message.

Impact of fix:

This fix has no impact on current workflow or data.

Known Issues in SoftMax Pro Software v6.2.2

For the SpectraMax Paradigm instrument, the minimum kinetic interval is sometimes estimated incorrectly, with an occasional data point outside of the reduction limit

Tracking ID: 8873

When setting up a kinetic protocol for a SpectraMax Paradigm instrument, sometimes the software incorrectly estimates the minimum kinetic interval. Depending on the reduction settings, data points might occur outside of the limit.

Planned Resolution:

More accurate kinetic interval estimation is in the product backlog for future development.

The settings return to defaults after moving a MULTI or TUNE detection cartridge between the top and bottom drawer in a SpectraMax Paradigm instrument while the Settings dialog is open

Tracking ID: 8901

With the Settings dialog open, moving a MULTI or TUNE detection cartridge between the top and bottom drawers on a SpectraMax Paradigm instrument resets the settings to their defaults.

Planned Resolution:

This issue was addressed in version 6.3. See The settings return to defaults after moving a MULTI or TUNE detection cartridge between the top and bottom drawer in a SpectraMax Paradigm instrument while the Settings dialog is open on page 24.

The system pauses and stops reading microplates after running multiple microplates with the StakMax Microplate Handling System

Tracking ID: 9282

While running multiple plates with the StakMax Microplate Handling System, the system sometimes pauses indefinitely during the process. To continue with the read, the user must click **Terminate** in the automation mode dialog, use the Task Manager to close the StakMax Software, restart the StakMax Software, and then resume the read.

Planned Resolution:

Preventing the system from pausing during a multiple-microplate read with the StakMax Microplate Handling System is in the product backlog for future development.

Known Issues in Previous Releases of SoftMax Pro Software 6

For the known issues reported in the release notes for previous releases, see the following topics:

- Known Issues in SoftMax Pro Software v6.2.1 on page 61
- Known Issues in SoftMax Pro Software v6.2 on page 81
- Known Issues in SoftMax Pro Software v6.1 on page 103
- Known Issues in SoftMax Pro Software v6.0 on page 113

SoftMax Pro Software Version 6.2.1 Software Release Notes

4

Introduction

The SoftMax® Pro Microplate Data Acquisition and Analysis Software version 6.2.1 update is a minor release. The following is a summary of the changes incorporated in this revision as compared to version 6.2, the last general release of the SoftMax Pro Software.

Modifications Made to SoftMax Pro Software v6.2.1

Protocol Modifications

The following protocol has been modified.

340PC 384 ABS1

In the **Reader Validation-Plate Abs** folder, the **Data Point Diagnostic** section of this protocol was modified to correct the expected numbers for the **Check of Stray Light Part 1**, **Check of Stray Light Part 2**, and **Check of Wavelength Accuracy** formulas.

Issues Addressed in SoftMax Pro Software v6.2.1

Incorrect assignment of measurement values while running circular well scan with the Tunable Wavelength (TUNE) Detection Cartridge

Tracking ID: 7223

The software displayed the incorrect measurement values after using the Tunable Wavelength (TUNE) Detection Cartridge to perform a well scan read on a microplate with circular wells.

Resolution:

The software displays the correct measurement values.

Impact of fix:

This fix has no impact on current workflow or data.

Removing a detection cartridge from a SpectraMax Paradigm instrument can cause the program to close unexpectedly

Tracking ID: 7395

With a SpectraMax Paradigm instrument connected and an available detection cartridge set up for an active Plate section, subsequently removing the detection cartridge can cause the program to close unexpectedly after clicking **Refresh** on the **Operations** tab in the ribbon, clicking the Plate section again, and then clicking **Settings**.

Resolution:

The software displays a message informing the user that the detection cartridge is no longer available.

Impact of fix:

This fix has no impact on current workflow or data.

Incorrect measurement values returned while running well scan in on-the-fly mode and an excitation wavelength less than 400 nm with the Tunable Wavelength (TUNE) Detection Cartridge

Tracking ID: 7411

The software displayed incorrect measurement values after using the Tunable Wavelength (TUNE) Detection Cartridge to perform FL or TRF well scan reads in on-the-fly mode and an excitation wavelength less than 400 nm.

Resolution:

A firmware update is required so that the software can display the correct measurement values. The firmware updates automatically after installing the new version of the software and then connecting to the SpectraMax Paradigm instrument.

Impact of fix:

This fix has no impact on current workflow or data.

Known Issues in SoftMax Pro Software v6.2.1

Raw value accessors return data in an unexpected numerical order for well scan data in the SpectraMax Paradigm instrument

Tracking ID: 7345

When using a raw value accessor in a formula for SpectraMax Paradigm instrument well scan data, the numbers are returned in the order top-to-bottom and then left-to-right. They should be returned left-to-right and then top-to-bottom.

Planned Resolution:

Normalizing the numerical order for well scan data display is in the product backlog for future development.

Known Issues in Previous Releases of SoftMax Pro Software 6

For the known issues reported in the release notes for previous releases, see the following topics:

- Known Issues in SoftMax Pro Software v6.2 on page 81
- Known Issues in SoftMax Pro Software v6.1 on page 103
- Known Issues in SoftMax Pro Software v6.0 on page 113

SoftMax Pro Software Version 6.2 Software Release Notes

5

Introduction

The SoftMax® Pro Microplate Data Acquisition and Analysis Software version 6.2 update is a minor release. The following is a summary of the changes incorporated in this revision as compared to version 6.1, the last general release of the SoftMax Pro Software.

New in SoftMax Pro Software v6.2

Plate Setup Helper

The new Plate Setup Helper starts by default each time you open a new SoftMax Pro Software file. It visually guides you through the tasks available in the software to setup a microplate to acquire data. To complete a task, click its button. After you complete a task the settings for the task are saved, and you return to the helper to select another task. If desired, you can prevent the Plate Setup Helper from automatically starting each time you open a new file.

Print to PDF

With the new save as PDF and print to PDF features, you can save the contents of the currently selected file in PDF format.

- To save as a PDF file, select **Save As PDF** from the **Application** menu.
- To print to a PDF file, use the **Print** dialog to select the **Molecular Devices (PDF Writer)** as your printer.

With either option, only the sections selected for printing are saved in PDF format.

Well Scan Optimized for Round or Square Wells

In the Plate Editor, you can define the shape of the wells of a microplate as either round or square allowing the SpectraMax Paradigm and FilterMax instruments to return Well Scan data based on the shape of the well.

New Protocols

The following protocols have been added to the installed software.

ADP Quest DiscoveRx

In the **Binding and Enzymology** folder, this protocol is designed to facilitate assay optimization for ADP Quest assays from DiscoveRx. This protocol can be used with all Gemini and SpectraMax M-series readers with Fluorescence detection mode capability.

Kinetic NAD(P)H Assay with PathCheck

In the **Binding and Enzymology** folder, this protocol is intended for enzyme assays that involve NAD(P)H absorbance measurements and require pathlength normalization. This protocol can be used with all Molecular Devices readers with Absorbance detection mode capability and PathCheck technology.

ADP Quest DiscoveRx (Paradigm)

In the **Paradigm Protocols** folder, this protocol is designed to facilitate assay optimization for ADP Quest assays from DiscoveRx. This protocol can be used with the SpectraMax Paradigm instrument with the TUNE or MULTI detection cartridge installed.

Kinetic NAD(P)H with PathCheck (Paradigm)

In the **Paradigm Protocols** folder, this protocol is intended for enzyme assays that involve NAD(P)H absorbance measurements and require pathlength normalization. This protocol can be used with the SpectraMax Paradigm instrument with the ABS detection cartridge installed.

Delfia TRF (Paradigm)

In the **Paradigm Protocols** folder, this protocol contains default settings for Delfia or other Europium-based time-resolved fluorescence (TRF) assays. This protocol can be used with the SpectraMax Paradigm instrument with the TUNE, MULTI, or TRF-EUSA detection cartridge installed.

Endpoint Paradigm ABS-MONO

In the **Paradigm Protocols** and **Basics** folders, a basic endpoint protocol has been included for use with the SpectraMax Paradigm instrument with the ABS detection cartridge installed.

Endpoint Paradigm TUNE

In the **Paradigm Protocols** and **Basics** folders, a basic endpoint protocol has been included for use with the SpectraMax Paradigm instrument with the TUNE detection cartridge installed.

DC Protein Assay

In the **Protein Quant** folder, this protocol is designed to be used with the Bio-Rad DC Protein Assay. This protocol can be used with all Molecular Devices readers with absorbance detection mode capability.

Modifications Made to SoftMax Pro Software v6.2

Sample Descriptor Values Retained in Series Dialog

The Series dialog now retains the Sample Descriptor settings for previously assigned wells.

Top Installed Detection Cartridges are Labeled

The SoftMax Pro Software indicates whether SpectraMax Paradigm detection cartridges are installed in the top drawer or the bottom drawer. In the previous version the software indicated when the detection cartridges was installed in the bottom drawer only.

Readers with Old Firmware are Detected

Connected VersaMax and SpectraMax 190 instruments with older firmware versions can now be detected by the software. Older versions of other supported instruments can also be detected.

Read Height Values are Displayed

For the SpectraMax Paradigm and FilterMax instruments that support adjustable read height, the set or optimized read height appears in the Settings Information and can be set in the PMT and Optics settings in the Settings dialog.

Software Version Appears in Splash Screen

The version number of the currently installed version the SoftMax Pro Software appears in the splash screen when the software starts up.

Protocol Modifications

The following protocols have been modified.

IMAP Evaluation Demo Kit

In the **IMAP** folder, this protocol was modified to correct the Group blank subtraction to **Before Reduction**.

MicroMax DNA Quantitation (Paradigm)

In the **MicroMax Low Volume Plate** folder, this protocol was created to combine and replace the **Paradigm 24well DNA quantitation** and the **Paradigm 64well DNA quantitation** protocols.

MicroMax DNA Quantitation

In the **MicroMax Low Volume Plate** folder, this protocol was created to combine and replace the **24well DNA quantitation** and the **64well DNA quantitation** protocols.

PicoGreen Fluorescence

In the **Nucleic Acids** folder, this protocol was modified to change the emission wavelength from 540 nm to 525 nm.

PathCheck-Kinetic

In the **Basics** folder, the Pathlength plate settings were corrected in this protocol and the instructions were updated to include the option of incorporating an extinction coefficient into the calculations. This protocol was renamed to replace the **Kinetic-PathCheck** protocol.

Issues Addressed in SoftMax Pro Software v6.2

Incorrect Instrument Status Displayed During Endpoint Calibration and Read

Tracking ID: 4769

In some cases, the software displayed the incorrect instrument status during Endpoint and Kinetic calibration and read.

Resolution:

The software correctly indicates whether the instrument is calibrating or reading.

Impact of fix:

This fix has no impact on current workflow or data.

Confidence Interval Appears after Confidence Interval is Turned Off

Tracking ID: 4771

After the Calculate confidence intervals check box was cleared in the Curve Fit settings the Confidence Interval was displayed for the reference plot in a global fit.

Resolution:

The Confidence Interval no longer appears when it has been turned off.

Impact of fix:

This fix has no impact on current workflow or data.

Incorrect Character Deleted with Backspace in Timing Setting

Tracking ID: 4807

In the Settings dialog Timing settings, pressing backspace with the cursor in the interval field deleted a character other than the character immediately to the right of the cursor.

Resolution:

Pressing backspace in the interval field deletes the expected characters.

Impact of fix:

This fix has no impact on current workflow or data.

Icons in the Plate Section Toolbar Appear Available when Disabled

Tracking ID: 4815

In the toolbar at the top of a Plate section, some of the buttons looked like they were functional when their function was not available.

Resolution:

New icons for the disabled state of the buttons more clearly indicate that they are not functional when their function is not available.

Impact of fix:

This fix has no impact on current workflow or data.

Stopping a Read Pauses and Restarts the Read

Tracking ID: 4819

Clicking the Stop button during a read using a SpectraMax Paradigm or FilterMax instrument paused the read and restarted it after the Time Out message was dismissed.

Resolution:

Clicking stop during a read stops and does not restart the read.

Impact of fix:

This fix has no impact on current workflow or data.

Autoscale Does Not Readjust for Masked Wells

Tracking ID: 4833

After masking wells, the remaining wells did not readjust autoscale to place the highest data point is near the top.

Resolution:

Masking wells refreshes the plate autoscale.

Impact of fix:

This fix has no impact on current workflow or data.

Incorrect Graph Plotting for Connect Points with Log Scale

Tracking ID: 4839

The graph plotting did not display connected points correctly when log scale was selected.

Resolution:

Connected point are displayed correctly.

Impact of fix:

This fix has no impact on current workflow or data.

Image Pasted in a Text Frame Disappears

Tracking ID: 4840

In a Notes section, after pasting an image into a text frame that contains no text, the image disappeared.

Resolution:

Pasted images remain as pasted in a text frame.

Impact of fix:

This fix has no impact on current workflow or data.

Some Font Selections Cause the Graph Appearance Dialog to Close Unexpectedly

Tracking ID: 4842

Selecting a font that does not contain defined styles for bold, italic, and regular caused the Graph Appearance dialog to close unexpectedly.

Resolution:

Font that do not contain defined styles for bold, italic, and regular can no longer be selected in the Graph Appearance dialog.

Impact of fix:

This fix has no impact on current workflow or data.

Using !WellPathlength Displays a value in Masked Wells

Tracking ID: 4849

Masking failed when the formula !WellPathlength was used.

Resolution:

Masked wells are displayed as Masked in a group table.

Impact of fix:

This fix has no impact on current workflow or data.

Custom Formulas Appear when Disabled

Tracking ID: 4850

In the Plot Editor dialog, custom input formulas were displayed as active when the previously defined custom input formulas were disabled.

Resolution:

When a custom formula is not selected as the input, it is displayed as gray and inactive.

Impact of fix:

This fix has no impact on current workflow or data.

Incorrect Well Scan Data Returned for !WellLm1

Tracking ID: 5182

When using the !WellLm1 formula for well scan data, incorrect data was returned.

Resolution:

When the !WellLm1 formula is used with Well Scan data, the complete raw data is returned in a list.

Impact of fix:

This fix has no impact on current workflow or data.

No Error Given in Automation for Invalid Section Name

Tracking ID: 5184

When SelectSection was called in an automation script with a section name that did not exist, the script seemed to run successfully and no error message appeared.

Resolution:

If an invalid section name is passed in, the script returns an error stating that the section name does not exist.

Impact of fix:

Scripts that use SelectSection with an invalid section name that were created for an earlier version of SoftMax Pro Software 6 might return an error message.

Calling Dispose() In an Automation Script Sometime Crashes the SoftMax Pro Software

Tracking ID: 5185

While automation commands were in the queue, calling Dispose() caused the SoftMax Pro Software to crash.

Resolution:

The software does not crash as the result of calling the Dispose() command.

Impact of fix:

This fix has no impact on current workflow or data.

Plate Blank not Applied in New Experiment

Tracking ID: 5212

In a new experiment, the plate blank was not applied to acquired data unless the Plate Editor dialog was first opened and then closed.

Resolution:

Plate blank is applied immediately upon acquisition of data.

Impact of fix:

This fix has no impact on current workflow or data.

Custom Reduction Allows Custom Display Settings

Tracking ID: 5249

Custom reductions included data display settings that had no effect on the data display.

Resolution:

Data display options has been removed from the Custom Plate Reduction dialogs.

Impact of fix:

This fix has no impact on current workflow or data.

Custom Formula in Graph Section Can Crash the Program

Tracking ID: 5731

A complex custom formula in a graph section could lock the program and cause it to crash.

Resolution:

Custom formulas no longer cause the program to crash.

Impact of fix:

This fix has no impact on current workflow or data.

No Visual Indicator of Reduced Value for Custom Spectrum Reduction

Tracking ID: 5780

In a Plate section, no visual indicator of reduced value appears for custom spectrum reduction.

Resolution:

If the display is set to Reduced for custom spectrum reduction, a visual indicator appears.

Impact of fix:

This fix has no impact on current workflow or data.

Autoscale is not Displayed Automatically and can Sometimes Cause the Program to Close Unexpectedly

Tracking ID: 5820

Sometimes, a graph did not automatically autoscale, and changing an autoscale setting could cause the program to close unexpectedly.

Resolution:

Autoscale is automatic and no longer causes the program to close unexpectedly.

Impact of fix:

This fix has no impact on current workflow or data.

Pathcheck Filter Wavelength is not Imported Correctly from a Version 5.x File.

Tracking ID: 5944

When importing from a version 5.x file with Pathcheck filters, the filter wavelength did not import correctly as 900F and 1000F.

Resolution:

The instrument settings accepts wavelength entries 900F and 1000F and displays those settings in the plate legend.

Impact of fix:

This fix has no impact on current workflow or data.

Plate Clone Reductions are Copied Incorrectly into a New Experiment

Tracking ID: 5984

When a new experiment was created from an experiment with defined reductions in the plate clones, the plate clones in the new experiment had the default reductions.

Resolution:

Plate clones in a new experiment have reduction settings identical to those in the original experiment.

Impact of fix:

Plate clones in experiments that were created with an earlier version of SoftMax Pro Software 6 might have reductions that differ from the original plates in the experiment.

Luminescence Kinetic Allows Incorrect Interval Setting

Tracking ID: 5985

When Calibrate is selected for a Luminescence Kinetic read, an incorrect timing interval can be entered in the instrument settings.

Resolution:

Time allowance for calibration has been added to the allowable minimum kinetic interval when Calibration is selected.

Impact of fix:

This fix has no impact on current workflow or data.

Extra Spaces Appear in !WellLm1 Column

Tracking ID: 6114

Extra spaces appear in a Group table with formula !WellLm1.

Resolution:

The group table is single-spaced.

Impact of fix:

Data files that were created using an earlier version of SoftMax Pro Software 6 might appear with the extra line spaces.

Selected Section does not Get Focus when Multiple Documents are Displayed in Comparison View

Tracking ID: 6116

When more than one document was displayed in Comparison view, clicking a Plate section in the navigation tree did not give the Plate section focus.

Resolution:

Clicking a Plate section gives the focus to that Plate section.

Impact of fix:

This fix has no impact on current workflow or data.

Graph Legend does not Scroll into View

Tracking ID: 6141

Expanding a graph legend did not scroll the graph legend into view.

Resolution:

A graph legend that is expanded in a Graph section automatically scrolls into view.

Impact of fix:

This fix has no impact on current workflow or data.

Performing Cuvette Reference Read with Hardware Buttons can Crash the Software

Tracking ID: 6170

Pressing the Ref button on the front panel of the instrument and then pressing the Read button on the instrument could sometimes crash the SoftMax Pro Software.

Resolution:

Pressing the hardware controls no longer crashes the software.

Impact of fix:

This fix has no impact on current workflow or data.

Attempting to Save to Location Where no Permission Exists can Cause a Program Exception

Tracking ID: 6171

When the save location for a file is in a directory where the current user does not have write permission, attempting to save the file could cause a program exception.

Resolution:

If a previously-used default folder is unavailable, the Save As dialog defaults to the current user's Documents folder.

Impact of fix:

This fix has no impact on current workflow or data.

The Vmax Reader is Sometimes Detected as an Emax Reader

Tracking ID: 6282

The Vmax reader was intermittently detected as an Emax reader.

Resolution:

The Vmax reader is always recognized as a Vmax reader.

Impact of fix:

This fix has no impact on current workflow or data.

Long File Path in Protocol Manager can cause Program Exception

Tracking ID: 6284

When a Protocol Manager folder had sub-folders that were longer than the allowable character limit, a program exception occurred.

Resolution:

If a path is longer than the system allows, the path is ignored.

Impact of fix:

This fix has no impact on current workflow or data.

NullBetween Returns Incorrect Value

Tracking ID: 6314

When an array was defined using NullBetween or NullOutside with start index 1, the result was incorrect.

Resolution:

The correct values are returned.

Impact of fix:

This fix has no impact on current workflow or data.

Pressing CTRL+Z to Undo a Font Change can Cause the Program to Close Unexpectedly

Tracking ID: 6315

Changing the font of text and then pressing CTRL+Z to undo the font change could cause the program to close unexpectedly.

Resolution:

Using CTRL+Z to undo a font change no longer cause the program to close unexpectedly.

Impact of fix:

This fix has no impact on current workflow or data.

The 3D Graph Window is Hidden Behind Other Windows

Tracking ID: 6389

When the 3D graph is displayed and the focus moves to another program, when returning to the SoftMax Pro Software the 3D graph was hidden behind the other windows.

Resolution:

When the 3D Graph window is open, it always displays on top of the SoftMax Pro Software window.

Impact of fix:

This fix has no impact on current workflow or data.

Inappropriate Curve-Fit Choices Appear in the Curve Fit Menu for Global Fit

Tracking ID: 6423

When using a Global Fit (PLA), some of the curve-fit choices in the Curve Fit menu were not relevant for a Global Fit.

Resolution:

Inappropriate curve-fit choices no longer appear in the Curve Fit menu.

Impact of fix:

This fix has no impact on current workflow or data.

Temperature Information Appears in Plate Legend for FilterMax F3 Instrument

Tracking ID: 6439

After reading a microplate with a FilterMax F3 reader, the plate legend listed the temperature as 0. This instrument does not have temperature control.

Resolution:

Temperature information no longer appears in the plate legend for the FilterMax F3 instrument.

Impact of fix:

This fix has no impact on current workflow or data.

Running an Automation Script with AutoRead enabled Causes the Program to Close Unexpectedly

Tracking ID: 6440

With AutoRead turned on in the program, running an automation script caused the program to close unexpectedly.

Resolution:

When the program is in automation mode, AutoRead is disabled.

Impact of fix:

To run an AutoRead for an experiment that was previous run in automation mode, AutoRead must be manually enabled.

Wavelength Settings do not Persist When Switching Between Read Types

Tracking ID: 6470

When switching between EndPoint, Kinetic, and Well Scan read types in the settings dialog, edited Wavelength settings were reset to the default values.

Resolution:

After editing wavelength settings in the Settings dialog, switching between EndPoint, Kinetic, and Well Scan read types retains the specified wavelength settings.

Impact of fix:

This fix has no impact on current workflow or data.

For Some Instruments, the Last Date Calibrated in the Calibration Dialog is Displayed as Unknown

Tracking ID: 6471

In the Calibration dialog, the Last Date Calibrated appeared as Unknown for some instruments.

Resolution:

The Calibration dialog correctly displays the Last Date Calibrated for all instruments that can be calibrated using the SoftMax Pro Software.

Impact of fix:

This fix has no impact on current workflow or data.

If Operator with a Boolean Array Returns an Incorrect Result

Tracking ID: 6488

The If operator gives incorrect results when its second and third parameters are arrays of booleans.

Resolution:

A correct result is returned.

Use of the If operator is unnecessary with boolean result parameters. The first parameter, or the condition, can be used directly.

Impact of fix:

This fix has no impact on current workflow or data.

Clipboard is Cleared After Pasting Group Table Columns

Tracking ID: 6507

After copying Group table columns and pasting that data into another Group table, the clipboard was cleared preventing the ability to paste the data into another Group table.

Resolution:

The data from copied Group table columns remains on the clipboard for multiple pasting operations.

Impact of fix:

This fix has no impact on current workflow or data.

Attempting to Open the Program When it is Already Open by Another User Crashes the Program

Tracking ID: 6538

When a user leaves the SoftMax Pro Software open and logs off, and then another user logs on to the same computer and attempts to open the program, the program crashes.

Resolution:

The program is prevented from being opened by two different users on the same computer. Instead, an error message appears for the second instance.

Impact of fix:

This fix has no impact on current workflow or data.

Group Blanks are Incorrectly Applied by Default Before Reduction for Well Scan Reads

Tracking ID: 6570

The reduction settings for Group Blank Options incorrectly defaulted to Before Reduction when a microplate was configured for a Well Scan read type.

Resolution:

The reduction settings for Group Blank Options default to After Reduction when a microplate is configured for a Well Scan read type.

Impact of fix:

This fix has no impact on current workflow or data.

GetAutosaveState Always Returns ON in the Automation Interface

Tracking ID: 6591

Sending the GetAutosaveState command always returned the state as ON in the automation interface, even when the active document had AutoSave disabled.

Resolution:

Sending the GetAutosaveState command returns the current AutoSave setting for the active document. If there is no active document the result will be 0, or Off.

Impact of fix:

This fix has no impact on current workflow or data.

Sample Script for GetFormulaResult Returns Incorrect Results in Automation Interface

Tracking ID: 6593

Running the sample script for the GetFormulaResult command returned incorrect results.

Resolution:

The GetFormulaResult sample script has been edited so that the correct results are returned.

Impact of fix:

This fix has no impact on current workflow or data.

Known Issues in SoftMax Pro Software v6.2

Software Slows when Group Tables Have More Than 200 Rows

Tracking ID: 4743

If a file contains a Group table that has more than 200 rows, the Software can begin to run more slowly and can slow down the performance of the computer.

Planned Resolution:

To prevent slow performance create group tables with fewer than 200 rows.

Improving the performance of the software for files with large Group tables is in the product backlog for future development.

Different Values are Displayed in Versions 5.x and 6.x for the Same File in the LambdaMax Column

Tracking ID: 4848

After opening the same file in SoftMax Pro Software v5.x and v6.x, each version of the software displays a different value in the LambdaMax column.

Planned Resolution:

None.

Inversions of cubic and particularly cubic spline functions can be ambiguous. In such cases version 6.x finds the calibrating point for which the y-value is closest to that being inverted, and then finds the solution x closest to the x-value of that point. This is not the algorithm used in version 5.x, but tends to give more reasonable back calculations of standard concentrations.

So version 6.x and version 5.x might differ in such cases.

Reduced Kinetic Plot is Displayed Incorrectly when Group Blanks are Applied After reduction

Tracking ID: 6533

With group blanks applied after reduction, the slope of the reduced Kinetic Plot is displayed incorrectly in the graph.

Planned Resolution:

Displaying the slope of the Kinetic Plots correctly when group blanks are applied after reduction is in the product backlog for future development.

Known Issues in Previous Releases of SoftMax Pro Software 6

For the known issues reported in the release notes for previous releases, see the following topics:

- Known Issues in SoftMax Pro Software v6.1 on page 103
- Known Issues in SoftMax Pro Software v6.0 on page 113

SoftMax Pro Software Version 6.1 Software Release Notes

6

Introduction

The SoftMax® Pro Microplate Data Acquisition and Analysis Software version 6.1 update is a minor release. The following is a summary of the changes incorporated in this revision as compared to version 6.0, the last general release of the SoftMax Pro Software.

New in SoftMax Pro Software v6.1

Additional Supported Instruments

The following instruments are now also supported:

- VersaMax™ ELISA Microplate Reader
- SpectraMax® 340PC 384 Absorbance Microplate Reader
- SpectraMax® 190 Absorbance Microplate Reader
- Gemini™ XPS Fluorescence Microplate Reader
- Gemini™ EM Fluorescence Microplate Reader
- FilterMax® F5 Multi-Mode Microplate Reader
- FilterMax® F3 Multi-Mode Microplate Reader
- DTX 800 and DTX 880 Multi-Mode Microplate Readers
- Vmax® Kinetic ELISA Microplate Reader
- Emax® Endpoint ELISA Microplate Reader

TUNE Detection Cartridge Support

The Tunable Wavelength (TUNE) Detection Cartridge is now supported for the SpectraMax® Paradigm® Multi-Mode Detection Platform. Previously, SoftMax Pro Software version 6.0 required an updater to support the TUNE detection cartridge.

StakMax Instrument Support

The StakMax® Microplate Handling System is now supported.

Additional Microplate Formats

1536-well microplates are now supported for the SpectraMax Paradigm Multi-Mode Detection Platform and the FilterMax Multi-Mode Microplate Readers.

The µMax™ Low Volume Microplate is supported in the 24-well and 64-well formats. Support includes plate definitions and “MicroMax” protocols created specifically for The µMax Low Volume Microplates.

Three-Dimensional Graphs

User can view a three-dimensional graphical representation of reduced plate data.

Protocol Sharing

The new Protocol Home Page feature gives users access the SoftMax Pro Software community web site for sharing protocols, exchanging tips and tricks, and networking with other experienced users. User can export protocols to a special format designed for uploading protocols for sharing.

To access this SoftMax Pro Software community web site, you must have internet access on your computer.

Integrated Web Browser

The What’s New tab in the document area contains a built-in web browser to keep you informed of new or updated products and to give you access to the technical support knowledge base.

Live Mini-Graphs and Tables in Notes

Live images of graph or table sections can be inserted in a Notes section. After changes are made to a section, any images of that section are updated in the Note section.

New Curve Fit

A new Gaussian curve fit has been added to the software.

New Statistical Function

The FirstZero function has been added to the formula editor to get sub-nanometer resolution of a spectral peak by locating the zero point in the derivative spectrum. Given an array of y-values (first parameter) and an array of corresponding x-values with the same number of elements, the FirstZero function returns the first x-value at which the interpolated y-value is zero.

New Protocols

The following protocols have been added to the installed software.

Cell Growth and Viability

- Alamar Blue Cell Viability.spr

FilterMax Reader Protocols

Protocols have been added to support the various read modes of the FilterMax F5 and F3 Multi-Mode Microplate Readers.

- F3 Basic Endpoint.spr
- F5 Basic Endpoint.spr

SpectraMax Paradigm Platform Protocols

Protocols have been added to support various detection cartridges for the SpectraMax Paradigm Multi-Mode Detection Platform.

- FP Rhodamine.spr
- LanthaScreen.spr

µMax Low Volume Microplate Protocols

New protocols have been added to support the 24-well and 64-well formats of the µMax Low Volume Microplate.

- 24well DNA quantitation.spr
- 64well DNA quantitation.spr
- Paradigm 24well DNA quantitation.spr
- Paradigm 64well DNA quantitation.spr

SpectraTest Validation Plate Protocols

The SpectraTest ABS Validation Plate protocols for the SpectraMax 190 and SpectraMax 340PC 384 readers have been adapted from the SoftMax Pro Software version 5.4 protocols.

- 190 ABS1.spr
- 340PC 384 ABS1.spr

A single protocol for the SpectraTest ABS Validation Plate protocol for the VersaMax reader has been created that combines the three separate protocols from SoftMax Pro Software version 5.4.

- VersaMax ABS1.spr

The SpectraTest FL1 Validation Plate protocols for the Gemini EM and XPS readers have been adapted from the SoftMax Pro Software version 5.4 protocols.

- Gemini EM FL1.spr
- Gemini XPS FL1.spr

Modifications Made to SoftMax Pro Software v6.1

Protocol Modifications

The following protocols have been modified.

Nucleic Acids

- PicoGreen Fluorescence.spr

  The emission wavelength was corrected from 540 nm to 525 nm.

SpectraMax Paradigm Platform Protocols

- AlphaScreen 384 HTS.spr

  The Intro notes section and experiment title were edited for clarity. Error bars were added to the graph.

- BRET2.spr

  The Intro notes section and experiment title were edited for clarity.

- GeneBLAzer.spr

  The Intro notes section and experiment title were edited for clarity.

- HTRF Assay Optimization.spr

  This protocol replaces the HTRF.spr protocol that was in SoftMax Pro Software version 6.0. It has a revised Intro notes section with updated group table calculations to match Cisbio preferred methods.

- HTRF Standard Assay Terbium.spr

  This protocol replaces the HTRF.spr protocol that was in SoftMax Pro Software version 6.0. It has a revised Intro notes section with updated group table calculations to match Cisbio preferred methods.

- HTRF Standard Assay.spr

  This protocol replaces the HTRF.spr protocol that was in SoftMax Pro Software version 6.0. It has a revised Intro notes section with updated group table calculations to match Cisbio preferred methods.

- IMAP FP FAM.spr

  The Intro notes section and experiment title were edited for clarity.

- MultiTox-Fluor.spr

  The Intro notes section and experiment title were edited for clarity.

TR-FRET

- HTRF Assay Optimization.spr

  This protocol replaces the HTRF_Competitive.spr, HTRF_Immunoassay.spr, and HTRF_Protease.spr protocols that were in SoftMax Pro Software version 6.0. It has a revised Intro notes section with updated group table calculations to match Cisbio preferred methods.

- HTRF Reader Control.spr

  This protocol replaces the HTRF_ReaderControl.spr protocol that was in SoftMax Pro Software version 6.0. It has a revised Intro notes section with updated group table calculations to match Cisbio preferred methods. The plate layout was revised to match Cisbio's Reader Control Kit plate layout as shown in the product insert.

- HTRF Standard Assay Terbium.spr

  This protocol replaces the HTRF_TerbiumCryptate.spr protocol that was in SoftMax Pro Software version 6.0. It has a revised Intro notes section with updated group table calculations to match Cisbio preferred methods.

- HTRF Standard Assay.spr

  This protocol replaces the HTRF.spr protocol that was in SoftMax Pro Software version 6.0. It has a revised Intro notes section with updated group table calculations to match Cisbio preferred methods.

Issues Addressed in SoftMax Pro Software v6.1

Support for the StakMax Microplate Handling System has not been implemented

Tracking ID: 2344

The StakMax Plate Handling System was not supported in the previous release. Automated protocols that require the use of the StakMax Microplate Handling System could not be run.

Resolution:

The StakMax Microplate Handling System is now supported.

Impact of fix:

This fix has no impact on current workflow or data.

G Factor is not visible in the reduction legend when Anisotropy display mode is selected

Tracking ID: 3231

When Anisotropy display mode was selected, the reduction legend did not display GFactor.

Resolution:

GFactor is now visible in the legend.

Impact of fix:

This fix has no impact on current workflow or data.

Masked wells are not cleared when a data file is saved as a protocol and then re-loaded

Tracking ID: 3413

If wells were masked in the data file, and then the data file was saved as a protocol file, when that protocol file is re-opened, the wells are still masked.

Resolution:

Masked wells are now cleared when a data file is saved as a protocol.

Impact of fix:

If users have previously save protocols with masked wells, then the protocols need to be saved again to remove the masking.

This fix has no other impact on current workflow or data.

Cannot delete a copy of the Sample column in the group table

Tracking ID: 3418

After pasting a copy of a Sample column, the pasted copy of the column could not be deleted.

Resolution:

Copies of columns can be deleted.

Impact of fix:

This fix has no impact on current workflow or data.

Graph axis intervals are inconsistent

Tracking ID: 3438

For some data sets, the intervals between axis tick marks on a graph were not multiples of 2, 5, or 10 making the axis appear to scale improperly.

Resolution:

Scaling changed to always show axis tick mark labels in multiples of 2, 5, or 10.

Impact of fix:

This fix has no impact on current workflow or data.

Interlaced Reading is an available for option for the Well Scan read type on a SpectraMax Paradigm instrument

Tracking ID: 3456

The SpectraMax Paradigm instrument does not allow performing an interlaced read with a Well Scan read type. This option was incorrectly available through the user interface.

Resolution:

This option is no longer available in the user interface.

Impact of fix:

This fix has no impact on current workflow or data.

Error when disconnecting from a flash drive after saving or opening a file

Tracking ID: 3464

If the last-used file was on a flash drive, and the flash drive was removed, starting the program displays a **Drive cannot be found** message.

Resolution:

If the SoftMax Pro Software cannot locate the drive that contains the last-used file when the program is started, then a pre-defined default location is selected.

Impact of fix:

This fix has no impact on current workflow or data.

Error when modifying instrument settings after a plate read has been triggered by AutoRead

Tracking ID: 3466

Changing settings to a plate that is being read can cause an error condition.

Resolution:

Modification of instrument settings while a plate is being read is no longer allowed.

Impact of fix:

This fix has no impact on current workflow or data.

SoftMax Pro hangs while attempting to connect to an instrument

Tracking ID: 3477

With some hardware configurations involving 3G cards (Huawei Mobile Connect) or virtual serial ports (RIM Blackberry Virtual Serial Port), the software tries to retrieve a response, and does not receive one.

Resolution:

A software time out was added for these devices.

Impact of fix:

This fix has no impact on current workflow or data.

Color map legend does not appear after a plate read completes

Tracking ID: 3486

When **Color Map** display mode is selected in the display options dialog before a read, the color map legend does not appear after a plate is read.

Resolution:

The color map legend now appears.

Impact of fix:

This fix has no impact on current workflow or data.

Reduction settings are reset after saving and loading a file

Tracking ID: 3547

In some cases, the Min and Max RFU values are reset after a file was saved and re-opened.

Resolution:

The values are no longer reset when file saved and re-opened.

Impact of fix:

This fix has no impact on current workflow or data.

Unexpected pause during automated read on the SpectraMax Paradigm instrument

Tracking ID: 3602

If **Show Pre-Read Optimization Options** is selected in the **Settings** dialog, the **Pre-Read Optimization Options** dialog appears even when reads are executing through an automation script causing the software to pause and wait for user intervention.

Resolution:

The **Pre-Read Optimization Options** dialog no longer appears while in automation mode.

Impact of fix:

This fix has no impact on current workflow or data.

Sample descriptors are not imported properly when importing a template

Tracking ID: 3683

When importing a template with multiple sample descriptors, some sample descriptors do not import properly.

Resolution:

Sample descriptors are now properly imported.

Impact of fix:

This fix has no impact on current workflow or data.

Application crashes when importing a template containing unsupported group types

Tracking ID: 3705

When importing a plate template that has a group type other than **Standards**, **Controls**, or **Custom**, the program crashes.

Resolution:

When attempting to import a plate template with an unsupported group type, an error message appears. This condition no longer causes the program to crash.

Impact of fix:

This fix has no impact on current workflow or data.

Error occurs when changing a group name through right-click context menu in the template editor

Tracking ID: 3708

In the template editor, selecting a group and then right-clicking to open the Edit Group dialog can cause an error condition after changing the name of the group and closing the dialog.

Resolution:

This scenario no longer causes an error condition. The group name can be successfully changed using this method.

Impact of fix:

This fix has no impact on current workflow or data.

Summary formula does not automatically recalculate when it is copied between experiments

Tracking ID: 3723

After pasting a copy of a summary formula into another experiment, the pasted copy of the summary formula does not recalculate properly.

Resolution:

Summary formulas recalculate after pasting.

Impact of fix:

This fix has no impact on current workflow or data.

Prompt to save does not appear when closing a data file after masking wells

Tracking ID: 3733

After masking wells and then closing the file, the software does not prompt the user to save the file.

Resolution:

Masking wells causes the software to prompt the user to save the file when the file is closed.

Impact of fix:

This fix has no impact on current workflow or data.

Name and serial number of TUNE cartridge does not appear in settings summary

Tracking ID: 3789

When using a SpectraMax Paradigm Tunable Wavelength (TUNE) Detection Cartridge, the name and serial number of the cartridge does not appear in the settings summary.

Resolution:

The name and serial number of the cartridge now appears.

Impact of fix:

This fix has no impact on current workflow or data.

Help file crashes if a user right-clicks and selects “Properties”

Tracking ID: 3853

Right clicking in a help topic and selecting **Properties** causes the help file to crash. In some cases, the program also crashes.

Resolution:

The help topic properties display properly without causing the help or program to crash.

Impact of fix:

This fix has no impact on current workflow or data.

Error state in Timing category of the Settings dialog for Abs Kinetic read type is not retained

Tracking ID: 3866

In the **Timing** category of the **Settings** dialog for an Abs Kinetic read type, if an interval that is less than the minimum was selected and then another category was viewed, then the error state of the **Timing** category disappeared.

Resolution:

The error message stays on the screen as long as the error state exists.

Impact of fix:

This fix has no impact on current workflow or data.

An assigned Group Blank resets to the incorrect reduction step after a template is modified

Tracking ID: 3889

When a Group Blank is assigned, the default setting in the Reduction dialog should be Before Reduction, but after modifying the template it changes to After Reduction.

Resolution:

After making template modifications, the group blank reduction option stays as it was before the modifications were made to the template.

Impact of fix:

This fix has no impact on current workflow or data.

Minimum kinetic interval calculation for TRF read mode is incorrect

Tracking ID: 3930

Many minor elements of the algorithm did not correlate to the instrument mechanics, which could cause inaccuracy.

Resolution:

Modifications were made that affect the calculation of the minimum kinetic interval for TRF and FP.

Impact of fix:

Protocols that were created with SoftMax Pro Software version 6.0 might not satisfy the minimum kinetic interval (rare).

This fix has no other impact on current workflow or data.

Pasting a copied template with an existing group name that uses a different case creates separate groups with the same name

Tracking ID: 3954

Multiple groups with the same name cannot exist within SoftMax Pro Software. Using copy and paste allowed users to do this if the group names used different cases.

Resolution:

Group names are no longer case sensitive. For example, **Standard** and **standard** are now the same group.

Impact of fix:

This fix has no impact on current workflow or data.

Application crashes if the instrument gets disconnected and an autoread starts

Tracking ID: 3964

If the instrument was disconnected and an autoread started, the program would crash.

Resolution:

The program no longer crashes if the instrument is disconnected and an autoread starts.

Impact of fix:

This fix has no impact on current workflow or data.

Append title commands in automation system allow duplicate section names to be created

Tracking ID: 3971

When running a script containing multiple commands Name Section and Append barcode, if the barcode was missing or not read, the “base” name was appended instead of the barcode. If this happened more than once, then duplicate names would be generated.

Resolution:

If a duplicate name is going to be created, the software appends a number (1, 2, 3,...) to the end of the plate name.

Impact of fix:

This fix has no impact on current workflow or data.

Quick access toolbar does not save and reload correctly

Tracking ID: 3976

If the quick access toolbar in the ribbon was modified, the modification did not persist after the program is closed and restarted.

Resolution:

The modifications are now saved when the program closes, and the modifications persist when the program restarts.

Impact of fix:

This fix has no impact on current workflow or data.

Prompt to save does not appear when closing a data file after resizing a column in a group table

Tracking ID: 3991

After resizing a column in a group table and then closing the file, the software does not prompt the user to save the file.

Resolution:

Resizing a column in a group table causes the software to prompt the user to save the file when the file is closed.

Impact of fix:

This fix has no impact on current workflow or data.

Automation command “SaveAs” does not check that the same document is already opened

Tracking ID: 3993

When an automation script issued the **SaveAs** command using the name of a file that was already open in the SoftMax Pro Software, the automation data would overwrite the data in the file.

Resolution:

If an automation script issues the **SaveAs** command using the name of a file that is already open in the SoftMax Pro Software, the automation API returns an error code and does not overwrite the data in the file.

Impact of fix:

This fix has no impact on current workflow or data.

Automation command “SetTitle” does not update any referenced formulas

Tracking ID: 3994

If an automation script issues the **SetTitle** command, referenced formulas are not updated.

Resolution:

Formulas are now refreshed after updating referenced formulas.

Impact of fix:

This fix has no impact on current workflow or data.

Exported text data cannot be parsed by automation systems

Tracking ID: 3996

The text export format in SoftMax Pro 6.0 is not structured in a way that can easily be parsed through a utility.

Resolution:

The export format was changed such that it could be parsed by a utility.

Impact of fix:

Automation scripts that were written with SoftMax Pro 6.0 might need to be modified to work with SoftMax Pro 6.1 data.

This fix has no other impact on current workflow or data.

Error state in Timing category of the Settings dialog does not appear if Shake is selected when the interval is too short for the Shake operation

Tracking ID: 3999

In the **Timing** category of the **Settings** dialog, if the minimum interval was selected when **Shake** was not enabled, and then **Shake** was enabled in the **Shake** category, then the expected error state of the **Timing** category did not appear, and the settings could be saved.

Resolution:

The error message appears and stays on the screen as long as the error state exists.

Impact of fix:

This fix has no impact on current workflow or data.

Interlaced Reading is an available for option for the AlphaScreen kinetic read type on a SpectraMax Paradigm instrument

Tracking ID: 4013

The SpectraMax Paradigm instrument does not allow performing an interlaced read with an AlphaScreen cartridge and kinetic read type. This option was incorrectly available through the user interface.

Resolution:

This option is no longer available in the user interface.

Impact of fix:

This fix has no impact on current workflow or data.

AutoScale does not place highest data point at or near the top of the well

Tracking ID: 4025

After data acquisition completed, the plate display did not scale to place the highest data point at or near the top of the well.

Resolution:

After data acquisition completes, the plate display scales to make the highest data point the maximum y-axis value in all wells.

Impact of fix:

This fix has no impact on current workflow or data.

Chat window does not display the entire content of the response

Tracking ID: 4041

The entire response for the connected system did not appear in the remote chat window.

Resolution:

Full responses now appear in the remote chat window.

Impact of fix:

This fix has no impact on current workflow or data.

Application crashes when a document is closed during an autosave

Tracking ID: 4045

If a document was closed when an autosave operation was being performed on the document, the application sometimes crashed.

Resolution:

The application no longer crashes when a document is closed while an autosave operation is being performed on the document.

Impact of fix:

This fix has no impact on current workflow or data.

Stopping a read while reading a FL-Spectrum read type with the TUNE cartridge freezes the application

Tracking ID: 4050

When using the SpectraMax Paradigm Tunable Wavelength (TUNE) Detection Cartridge in Fluorescence mode using a Spectrum read type, the application froze if the **Stop** button was clicked while the plate was being read.

Resolution:

The application no longer freezes when using the SpectraMax Paradigm Tunable Wavelength (TUNE) Detection Cartridge in Fluorescence mode using a Spectrum read type and the **Stop** button is clicked while the plate is being read.

Impact of fix:

This fix has no impact on current workflow or data.

Calibrate dialog can be closed during calibration by clicking on the red X in the upper corner of the dialog

Tracking ID: 4053

While a calibration was in progress, the Calibration dialog could be closed by clicking the red **X** in the upper-right-corner of the dialog. This did not stop the calibration in progress.

Resolution:

The red **X** has been removed from the Calibration dialog.

Impact of fix:

This fix has no impact on current workflow or data.

Application crashes when opening a document from the file system directly after installation completes

Tracking ID: 4055

Immediately after installing and launching the program, double-clicking a previously saved data file caused the application to crash.

Resolution:

The application no longer crashes when double-clicking a previously saved data file.

Impact of fix:

This fix has no impact on current workflow or data.

AutoSave default path points to an incorrect location

Tracking ID: 4058

The AutoSave path listed the default save location as C:\Documents and Settings\All Users\Application Data\Molecular Devices\SMP6\Log, which is hidden to many users.

Resolution:

The default path was changed to Documents\SoftMax Pro or My Documents\SoftMax Pro, depending on the operating system.

Impact of fix:

Data files from SoftMax Pro Software version 6.0 might need to be updated to a new path.

This fix has no other impact on current workflow or data.

Cancel button in Auto Save dialog does not cancel changes made in the dialog

Tracking ID: 4061

After making changes in the Auto Save dialog and then clicking **Cancel**, the changes were retained.

Resolution:

After making changes in the Auto Save dialog and then clicking **Cancel**, the changes are no longer retained.

Impact of fix:

This fix has no impact on current workflow or data.

One or more points may be incorrectly missing in a graph when a referenced group table column contains a masked value

Tracking ID: 4071

A data point that was referencing a calculation containing masked values was missing on the graph.

Resolution:

All unmasked data points appear in a graph.

Impact of fix:

This fix has no impact on current workflow or data.

Multiple plates are written to a non-.sda file during an autosave

Tracking ID: 4074

When autosaving to a file format other than .sda from a document that has similar plate names (for example, **Plate1** and **Plate10**), the autosaved data contained data from both plates.

Resolution:

Autosaved data in formats other than .sda now save the data for only one plate at a time regardless of the plate names.

Impact of fix:

This fix has no impact on current workflow or data.

Known Issues in SoftMax Pro Software v6.1

Minimum kinetic interval might be larger than necessary

Tracking ID: 3924

If the number of flashes is modified in the **Settings** dialog, the minimum kinetic interval might not change, even though the instrument timing is affected by this parameter.

Planned Resolution:

This issue was addressed in version 6.2.2. See Minimum kinetic interval might be larger than necessary on page 45.

Exporting templates in XML format is not supported

Tracking ID: 4076

Templates cannot be exported to XML format.

Some automation partners who rely on XML format might need to use a text format instead.

Planned Resolution:

This issue has been noted and is in the product backlog for future resolution.

Known Issues in the Previous Release of SoftMax Pro Software 6

For the known issues reported in the release notes for the previous release, see the following topic:

- Known Issues in SoftMax Pro Software v6.0 on page 113

SoftMax Pro Software Version 6.0 Software Release Notes

7

Introduction

The SoftMax® Pro Microplate Data Acquisition and Analysis Software version 6.0 update is a major release. The following is a summary of the changes incorporated in this revision as compared to version 5.4.3, the last general release of the SoftMax Pro Software.

New in SoftMax Pro Software v6.0

Enhanced User Interface

The application has been redesigned from the ground up with the focus on improving the user interface. The following are some of the key improvements:

- Template Editor: The Template Editor dialog has been redesigned to make the layout more intuitive and consistent with user workflow.
- Reduction Dialog: The Reduction Dialog has been redesigned to display the order in which calculations are applied to data.
- Microsoft Office 2007 Ribbon interface: The Ribbon helps you to quickly find the commands that you need to complete a task. Commands are organized in logical groups, which are collected together under tabs.
- Context-sensitive help: The application now has context-sensitive help. Users can go directly to the relevant page in the SoftMax Pro Microplate Data Acquisition and Analysis Software application help from various dialogs.
- Right-click shortcuts: Right-click context menus now exist throughout the application.
- Navigation Tree: The Navigation Tree view displays all sections within a document and allows navigation to a specific section by clicking the section name.

Syntax Helper for Formula Writing

The new Syntax Helper in the Formula Editor dialog displays available accessors, operators, and function names as well as their parameter data types as a user types the starting characters.

SpectraMax® Paradigm® Instrument Support

SpectraMax® Paradigm® Multi-Mode Microplate Detection Platform and its cartridges are supported. For information on the supported cartridges, see the *SoftMax Pro Microplate Data Acquisition and Analysis Software User Guide* or the application help.

Real-Time Input Validation

Input validation has been improved to show real-time feedback on input values, allowing users to immediately correct invalid entries.

Plate Cloning

The Plate Cloning feature allows you to create multiple sets of sub-Plate sections within a Plate section and apply template (Group) assignments and reduction calculations unique to that sub-Plate section. This allows you to perform multiple calculations or reductions on one set of raw data and prevents the need to copy raw data from one Plate section to another to apply and view different groups and reduction calculations.

New Curve Fits and Fitting Options

New curve fitting formulas have been added.

- Rectangular Hyperbola
- 2-Parameter Exponential
- Bi-exponential
- Bi-rectangular Hyperbola
- Two-site competition

For linear fits, parameters can be fixed at specified values. For non-linear fits, an initial (seed) value can be specified for each parameter, or parameters can be set as a fixed value.

Users can choose a different curve fit for each plot and can calculate parameter dependencies.

A new T-Distribution confidence interval method has been added that is based on the T-profile function.

Detailed Curve Fit Report

Curve Fit equation, parameter values, standard error, and confidence interval are all shown in the graph legend in the Graph section. When applicable, EC50 is shown.

Export to Excel

Plate data and (group) template assignments can be exported to Excel in the *.xls format, in addition to text and XML formats.

Enhanced Note Section

Text-editing capabilities are extended with enhanced layout control and the ability to include images.

Data Recovery

The application automatically saves any unsaved data files every five minutes and recovers those files if it encounters abrupt system or application failure.

Improved Plate and Cuvette Display

Plate and cuvette data now auto-scales during and after acquisition. The display of well scan data is now in color, instead of grayscale.

Redesigned Template Editor

The Template Editor dialog has been redesigned to make the layout more intuitive and consistent with user workflow. A second sample descriptor is now available. Users can choose the color for a group instead of having the color pre-selected.

For a series, users can now choose the number of replicates in the X and Y directions, allowing 2x2 blocks, for example. Users can assign a series in reverse order.

The Template editor has more intuitive copying and pasting of template sections within the template editor, and of entire templates outside of the template editor.

Enhanced Group Table Features

The mouse can be used to drag and drop columns. Users can view all columns in a wide group table by dragging the scroll bars.

Additional Export Features

Users now have the option to export raw plate data, reduced plate data, or both, and can choose individual sections to export instead of just all plates, or all groups.

Enhancements to Printing

A print preview is now available. In the printed output, group tables are now paginated along row boundaries.

New Protocols

The following protocol files were added:

- **Derivative spectra.spr**

  The protocol uses the new plate clone feature to allow multiple reductions and displays with a single data set.

  The displays include:

  - Standard spectral display (OD, RFU, RLU)
  - First derivative of the original spectrum
  - Second derivative of the original spectrum

- **Equilibrium Binding.spr**

  The protocol uses the Rectangular hyperbola curve fit to estimate directly total binding and dissociation constant (Kd) without the need to transform the data.

- **Kinetic with smoothing.spr**

  The protocol uses a 5-point, second-order Savitzky-Golay filter to produce a smoothed data set. The smoothing function assumes that the data points are equally spaced.

- **AlphaScreen 384 HTS.spr**

  This protocol contains default settings suitable for detecting AlphaScreen and AlphaLISA assays on the SpectraMax Paradigm instrument using the ALPHA-384 HTS Detection Cartridge.

- **BRET2.spr**

  This protocol contains default settings suitable for BRET2 assays on the SpectraMax Paradigm instrument using the Dual Color Luminescence (LUM-BRET2) Detection Cartridge.

- **GeneBLAzer.spr**

  This protocol contains default settings suitable for detecting GeneBLAzer assays on the SpectraMax Paradigm microplate reader using the GeneBLAzer Detection Cartridge. This cartridge was designed to be used with Invitrogen’s GeneBLAzer assays.

- **HTRF.spr**

  This protocol contains default settings suitable for detecting HTRF assays with Europium cryptate on the SpectraMax Paradigm instrument using the HTRF Detection Cartridge.

- **IMAP FP FAM.spr**

  This protocol is designed to simplify data acquisition and analysis of fluorescence polarization (FP) data in conjunction with a SpectraMax Paradigm instrument with the Fluorescence Polarization (FP-FLUO) Detection Cartridge.

- **MultiTox-Fluor.spr**

  This protocol contains default settings suitable for detecting MultiTox-Fluor assays on the SpectraMax Paradigm instrument using the MultiTox-Fluor Detection Cartridge. This cartridge was designed to be used with Promega's MultiTox-Fluor cell viability assay.

Additional protocols are available for downloading. For more information about available downloads, contact Molecular Devices customer support.

Other Improvements

- Setting header and footer information in the printed output.
- Comparing sections within a document in the Comparison view.
- Comparing documents using the Vertical or Horizontal Tab groups.
- Zooming in and out of a document or section using the slider bar in the lower-right corner.
- Zooming within the graph body, both in the Zoomed Well dialog and a Graph section.
- Scrolling with the mouse wheel in the Document view.
- Selecting from a list of recently opened documents.
- Setting precision and output format for formula results.
- Selectively showing and hiding columns in the Group section.
- New formulas for first and second derivatives and data smoothing.

Modifications Made to SoftMax Pro Software v6.0

License Management

The SoftMax Pro Software v6.0 license requires activation within 14 days after installation. Both Online and Offline activations are available.

Automation (Robotic) Interface

The automation interface (technology) has been changed from Windows Messaging to the Microsoft .NET-based assembly. Sample codes and scripts are included in the SoftMax Pro Microplate Data Acquisition and Analysis Software v6 installer.

The *SoftMax Pro Automation API Reference Guide* and *SoftMax Pro Automation Sample Application* are available from the Windows Start menu at **Start > All Programs > Molecular Devices > SoftMax Pro 6.0 > Automation SDK**.

Protocol Manager

Multiple protocol locations or folder paths can be assigned, and protocol files from those locations can be viewed in a single drop-down list.

Group Blank Subtraction

Group blank behavior is now flexible. Group blanks can be either subtracted from raw data, like plate blanks, or after post-reduction calculations as in SoftMax Pro Software v5.4.2. This can simplify the Fluorescence Polarization protocols.

Curve Fits

The mathematical libraries used for curve fitting have been upgraded, which might create different results from previous versions. Internal testing has shown that the changes are statistically insignificant.

In the case of the Exponential fit, previous versions had an option to choose a “linearized” method. This option is no longer available.

Formula Editor

Formulas are now case sensitive. In previous versions, including v5.x, formulas were not case sensitive.

AutoSave

AutoSave settings are now saved with each document.

Pre-Read Plate Blanking Option for Absorbance Reads

The Pre-Read Plate blanking option for absorbance reads has been removed from the application to minimize confusion. It is no longer needed to correct for well-to-well variability in currently available UV plates.

Settings

Minimum kinetic interval calculations are now more accurate.

Instrument connection

Users can now view and refresh the list of connected instruments at any time.

Simulated Data

New, more realistic data is now acquired while in simulation mode.

Protocols

All protocols are now in the *.spr (SoftMax Pro Microplate Data Acquisition and Analysis Software v6 Protocol) format.

The following protocol files were updated:

- **Michaelis Menten**
  - Parameters are now estimated directly using the rectangular hyperbola curve fit.
- **Fluorescence Polarization**
  - All fluorescence polarization protocols were greatly simplified by using the new group blank feature.

For more complete information about the changes made to a specific protocol, see the revision information in the Notes section of the protocol.

Other Modifications

- Data entry for PathCheck plate background constants has been moved from the Instrument Settings dialog to the Reduction dialog.
- AutoRead settings have been moved from the Instrument Settings dialog to a centralized dialog accessible from the Operations tab. Only one delay value is allowed for all plates.
- The FP display modes Polarization and Anisotropy have been moved from the Display dialog to the Reduction dialog.
- The Kinetic “Peak” reduction has been renamed to “Maximum.”
- If a file contains plate settings that are incompatible with the currently-selected instrument, the file cannot be opened.

Known Issues in SoftMax Pro Software v6.0

Support for the StakMax Microplate Handling System has not been implemented

Tracking ID: 2344

The StakMax® Microplate Handling System is not supported in this release. Automated protocols that require the use of the StakMax Microplate Handling System cannot be run.

This issue was addressed in version 6.1. See Support for the StakMax Microplate Handling System has not been implemented on page 88.

Some 384-well plate display options have not been implemented

Tracking ID: 2463

The 384-well plate-specific display options vertical, rotated, and interleaved have not been implemented.

Implementing support for these display options is in the product backlog for future implementation.

The bar graph option has not been implemented

Tracking ID: 2491

The ability to create or display a bar graph has not been implemented. If a user opens a 5.x file that has a bar graph, the bar graph will be converted to a scatter graph in the v6 file. The 5.x file is not changed, so the bar graph can still be viewed using the 5.x version of SoftMax Pro Microplate Data Acquisition and Analysis Software.

Implementing bar graphs is in the product backlog for future implementation.

Cannot export cuvette sets

Tracking: ID 2494

The ability to export cuvette sets has not been implemented.

Implementing cuvette-set export is in the product backlog for future implementation.

The Threshold reduced data display is not available

Tracking ID: 2497

The Threshold reduced data display option has not been implemented. The color map display options can be used to achieve similar results.

Implementing the Threshold reduced data display option is in the product backlog for future implementation.

The Ranged reduced data display is not available

Tracking ID: 2498

The Ranged reduced data display option has not been implemented. The color map display options can be used to achieve similar results.

Implementing the Ranged reduced data display option is in the product backlog for future implementation.

Importing raw data has not been implemented

Tracking ID: 2521

The ability to import data into a Plate section has not been implemented.

Importing data into a Plate section is in the product backlog for future implementation.

Pasting Kinetic, Spectrum, or Well Scan data into SoftMax Pro Microplate Data Acquisition and Analysis Software v6 from external applications is not supported

Tracking ID: 2726

The ability to paste plate data from an external application is supported only for the Endpoint read type.

Pasting Kinetic, Spectrum, and Well Scan data is in the product backlog for future implementation.

The Decimal Symbol of the Regional and Language Options settings has to be set to the period symbol (“.”) regardless of the language setting

Tracking ID: 2727

When the language setting on a computer is set to a language other than English, the decimal symbol can be set to a symbol other than the period symbol, generally the comma symbol (“,”). If this happens, parsing or calculations might not be executed correctly in SoftMax Pro Microplate Data Acquisition and Analysis Software. To allow SoftMax Pro Microplate Data Acquisition and Analysis Software to work properly, the user must customize the computer’s regional options to use the period symbol (“.”) for the decimal symbol.

Allowing the comma symbol (“,”) for the decimal symbol is in the product backlog for future implementation.

Auto Print not available

Tracking ID: 2768

The ability to print automatically after a read completes has not been implemented.

Implementing Auto Read is in the product backlog for future implementation.

Duplicating sections is not available

Tracking ID: 2769

The menu option to duplicate the selected section has not been implemented. This can be accomplished by creating a new experiment or a new section.

Implementing the ability to duplicate the selected section is in the product backlog for future implementation.

Displaying a cuvette set as a 96-well plate is not available

Tracking ID: 2770

The ability to display a cuvette set as a 96-well plate has not been implemented.

Implementing the ability to display a cuvette set as a 96-well plate is in the product backlog for future implementation.

Raw data does not display in 1000s

Tracking ID: 2771

The option to display raw data in 1000s has not been implemented. Raw data is displayed in scientific-notation by default, reducing the need to also display the data in 1000s.

Implementing the option to display raw data in 1000s is in the product backlog for future implementation.

Removed SpectraMax Paradigm detection cartridges display as available in Instrument Settings dialog

Tracking ID: 2863

If a detection cartridge is removed from the SpectraMax Paradigm instrument while SoftMax Pro Software is running, the list of available detection cartridges in the Instrument Settings dialog continues to display the removed detection cartridges as available in the instrument. This can be resolved by closing and restarting the SoftMax Pro Software.

Displaying available detection cartridges in real time is in the product backlog for future implementation.

Notes sections might be split across pages when printing

Tracking ID: 032198

If text or a formula is located at the bottom of a printed page, the top half of the text might appear on the first page, and the bottom half of the text might appear on the second page. This can be resolved by adjusting the position of the text or formula in the notes section.

Some systems might freeze or display incorrectly if using an out-of-date display driver

Tracking ID: 032869

This issue was found to exist with the Intel G41 Express Chipset 8.15.10.1749; 6-May-2009 display driver.

This issue can be resolved by upgrading the users computer to the latest version of the display driver.