# SoftMax Pro 6 Microplate Data Acquisition and Analysis Software



Workflow from data acquisition to reporting





### **KEY FEATURES**

- Over 140 ready-to-run protocols
- Supports traditional and unconventional microplate reader assays, including imaging cytometry and western blots
- Protocol sharing with a strong user community
- Spectral optimization wizard to maximize assay signal window (SpectraMax i3 and Paradigm readers only)



## SoftMax Pro Software

SoftMax Pro<sup>®</sup> Software is the most published microplate reader control and microplate data analysis software package available to scientists.

The inclusive package of ready-to-run protocols, analysis algorithms, and 19 different curve fit options provides the full solution from data acquisition to analysis to publishing. The FDA 21 CFR Part 11 compliance tools available for regulated laboratories deliver a complete solution to minimize validation costs, provide end-to-end chain of custody, and eliminate the need to validate additional analysis software. SoftMax Pro is designed to provide both the simplicity needed for new users and the flexibility and power required for advanced data analysis. Every step has been optimized, whether you are acquiring data from a Molecular Devices microplate reader or importing data from another source, to simplify your analysis and reporting.



## SoftMax Pro Software simplifies data acquisition

SoftMax Pro offers a variety of options to initiate the measurement of a microplate, the first step in data acquisition. Whether it's the selection of a pre-written protocol with built-in data reduction or simply setting your own parameters, starting a microplate read is just a few clicks away.

- Eliminate the need to configure the connection between your instrument and computer by letting SoftMax Pro automatically recognize your instrument
- Use over 140 pre-written protocols with pre-configured assay parameters and analysis settings to read, analyze, and report without having to become an expert
- Acquire the best data for your assay using several read options including endpoint, kinetic, spectral scan, and well scan
- Obtain the best signal window for your fluorescence-based assays with the fluorescence spectral optimization wizard
- Normalize OD measurements to a 1 cm path length using SoftMax Pro's patented PathCheck<sup>®</sup> Technology to avoid inconsistent readings from fluctuations in pipetting
- Pre-select standard data reduction settings as defaults within a protocol
- Ensure your results are never lost with automatic data recovery



## Import plate-based data from any vendor

SoftMax Pro enables you to import data from acquisition sources other than a Molecular Devices microplate reader. The two different data import options are tailored to quickly get your data into SoftMax Pro to provide a single source of software for all your data reduction needs.

### SIMPLE SETUP FLEXIBLE AND POWERFUL

- Prepare data in the provided easy-touse Excel import templates
- Import data into SoftMax Pro Software from any non-Molecular Devices microplate reader
- Import XML-based data directly into SoftMax Pro Software for easy automation



## Flexible calculations and formulas

SoftMax Pro provides the most comprehensive source of microplate data analysis features available in a microplate reader software. Whether your need is simple curve fitting or extensive calculations across multiple plates, SoftMax Pro covers the full range of analysis capabilities.

- Utilize one of the 19 different curve fit options to fit and graph your data in the best possible way
- Apply standards across multiple plates to simplify cross-plate analysis and interpolation
- Easily automate common calculations like relative potency,  $\mathrm{EC}_{\mathrm{50}}$  and Z factors
- Clone your plate data for multiple data reduction options, enabling you to test different analysis methods
- Perform custom, mathematical calculations with the SoftMax Pro formula system

### Image analysis

SoftMax Pro is capable of analyzing more than just standard microplate data. Acquisition and image-based data analysis may be done with the full set of SoftMax Pro analysis tools.

 Easily acquire and analyze images generated from the SpectraMax<sup>®</sup> MiniMax<sup>™</sup> Imaging Cytometer



#### STANDARDIZE TO A SINGLE ANALYSIS PLATFORM WITH THE SOFTMAX PRO 6.4.1 IMPORT FEATURE

- Count cells with StainFree Technology
- Recognize your cell types with supervised machine learning
- Easily acquire and analyze western blot images generated from the ScanLater Western Blot Detection Cartridge



### Publish like a pro

SoftMax Pro provides you with the tools needed to get your data ready to publish or report. The flexible data output formats give you multiple options to get the data where and how you need it.

- View data in lab notebook format
- Print it the way you see it in SoftMax Pro
- Create reports your way with customizable notes sections and even include your own logo
- Export directly to a .xls (Excel) file or to XML for LIMS integration
- Easily save as a PDF file

# GxP tools for FDA 21 CFR Part 11 compliance

SoftMax Pro 6 GxP Software provides FDA 21 CFR Part 11 compliance tools in conjunction with data acquisition and analysis for 20+ Molecular Devices microplate readers.



### **Powerful compliance tools**

For laboratories in regulated environments, the SoftMax Pro GxP Software facilitates adherence to worldwide regulatory expectations with 21 CFR Part 11 compliance tools.

- Apply electronic signatures for verification, authorization, and approval of data files
- Track and record actions in the Audit Trail
- Control user licenses and access for increased security with powerful user management options
- Assign user permissions with a granular level of control
- Set up multiple administrators to manage separate user groups
- Administer user accounts remotely
- Lockout log on failures and set additional security features including automatic idle log out and password aging
- Allow off-line usage and/or guest access
- Host user account files on a TCP/IP server
- Simplify and centralize site-license administration
- Transfer licenses among users quickly and easily



### Faster, easier validation

Optional hardware and software validation tools are designed to speed and simplify the validation process by making it easier to demonstrate compliance of data collection and analysis. Available tools include:

- All-inclusive software validation package for SoftMax Pro GxP Software
- Instructions and worksheets for Installation Qualification (IQ)
- Instructions and worksheets for Operational Qualification (OQ) including important curve fits and routine calculations such as parallel line analysis
- Details on SoftMax Pro GxP Software features for implementation of FDA's 21 CFR Part 11 compliance requirements
- Validation plates for precise optical verification of microplate readers with detailed protocols and calculations
- On-site service for IQ-OQ and preventive maintenance by a certified field service engineer that includes:
  - A complete digital qualification report with calibration certification
  - Compliance to 21 CFR Part 11
    requirements with electronic signatures
    and date/time stamps
  - Instant results with automated calculations built into the protocols for error-free procedure
  - Preventive maintenance to assure the best working condition for the microplate reader.



### System requirements

### Minimum requirements

- Computer with single-core processor, 2 GHz or faster
- Windows 7, 32-bit or 64-bit (x86 or x64)
- 2 GB RAM
- 500 MB of available hard disk space
- 1024 x 768 or higher resolution display
- RS-232 serial port or USB 2.0 port with a Keyspan USB-to-serial adapter
- CD drive or external USB drive
- .NET Framework 4.0\*

#### **Recommended requirements**

- Computer with quad-core processor, 2 GHz or faster
- Windows 7, 32-bit or 64-bit (x86 or x64) or Windows 8, 32-bit or 64-bit (x86 or x64)
- 4 GB RAM\*\*
- 1 GB of available hard disk space or more
- 1280 x 1024 or higher resolution display with 32-bit graphics display and 256 MB video RAM
- RS-232 serial port or USB 2.0 port with a Keyspan USB-to-serial adapter
- CD/DVD drive or external USB drive
- Internet connection
- .NET Framework 4.0\*
- \* .NET Framework 4.0 is installed automatically by the SoftMax Pro installer if necessary.
- \*\* If running on a virtual machine, Molecular Devices recommends a quad-core or faster processor with at least 6 GB RAM. For automation, 8 GB RAM is recommended.

# SoftMax Pro 6.4.1 Features



140+ pre-written protocols\* Chromo-LAL Antibody titration Multi-peak identification Equilibrium/percent binding Michaelis Menten Cell Titer-Glo Parallelism test (Fieller's Theorem) ELISA FP – anisotropy TRF/HTRF DNA/RNA/PathCheck Bradford/BCA Dual-Glo luciferase Trending with LabSpeed LS ... and more! Read settings\* Endpoint Kinetic Spectrum scan Well scan: horizontal, vertical, cross, fill Set multiple wavelengths per read Plate type editor Read partial plates\* Multi-plate and multi-mode\* protocols Real-time kinetic data reporting\* Simulation mode Robotic and automation interface Import LIMS template information Export to a LIMS Automate software functionality Integrate with robots Imaging\* Western blot Whole cell: transmitted light and fluorescence



Sample ID lists / Plate templates Raw data\*\*: text or XML files (Import templates included)



Display data as raw and/or reduced color map or gray scale View plate data in 3D graph Plate cloning for multiple reductions Kinetic reduction\* Set first data point to zero Vmax/time to Vmax Onset time Time at: max, min, 1/2 max Max/min/max-min Mean Area under curve Slope Custom formula Curve fits No Fit (scatter plot) Linear Semi-Log Log-Log Quadratic Cubic Log-Logit 4-Parameter 5-Parameter 5-Parameter Alternate Cubic Spline Exponential Point-to-Point Rectangular Hyperbola 2-Parameter Exponential **Bi-Exponential Bi-Rectangular Hyperbola Two-Site Competition** Gaussian Brain Cousens Curve analysis IC50/EC50 Interpolation Custom weighting Parallel line analysis Display relative potency and R<sup>2</sup> Integrated confidence interval display Formula syntax helper Imaging\*: cell viewing and counting



Format notes sections and add images Custom report layout Set graph fonts and curve colors Export graph as a .png file Export: text, Excel, or XML file Export in plate or list format Print as PDF Autosave: .sda(x), text, Excel, or XML file Cell images\* Western blot images\*



SoftMax Pro GxP\*\*\* FDA 21 CFR Part 11 compliance tools Electronic signatures Electronic audit trail File lockdown after statement signing Login and password protected Password aging Account deactivation after login failure Central user account administration Multiple administrators Transfer user licenses Modify user and group permissions Control offline use and guest access File path or TCP/IP server connection Software validation package \* Applies to select plate reader models \*\* Requires SoftMax Pro Import Feature subscription \*\*\* Requires SoftMax Pro GxP software package

Custom protocol writing, advanced SoftMax Pro support, and GxP installation services are also available.

5

Product	Annual Subscription	Non-Expiring
SoftMax Pro Standard Software	One year subscription to the latest version of SoftMax Pro 6. Includes one activation key which expires after one year. Annual renewal.	Non-expiring license for the latest version of SoftMax Pro 6. Includes four activation keys.
Windows 7/8 compatible	Part number: SMP6 PROF SUBSCR SMP6 ACAD SUBSCR*	Part number: SMP6 PROF SMP6 ACAD*
	*For verified academic institutions	*For verified academic institutions
SoftMax Pro GxP Software Windows 7/8		Latest version of SoftMax Pro 6 GxP. Includes tri-fold CD package with GxP Admin, SoftMax Pro 6 GxP, Validation Pack CDs, GxP User License certificate, SoftMax Pro 6 GxP Product
compatible		Activation Key Sheet, and Compliance certificate. Part number: SMP6X GxP*
		User license part number: SMP6 GxP License (3-10) SMP6 GxP License (11-50) SMP6 GxP License (>50)
		*Requires purchase of any amount of user licenses (minimum three). Tiered pricing is based on number of user licenses purchased. Please select one user license part number when ordering.
SoftMax Pro Importer XLS	One year subscription to enable import of data into SoftMax Pro from an Excel-based template. Includes one activation key which expires after one year. Annual renewal.	
Requires SoftMax Pro 6.4.1 or higher	Part number: SMP.IMPORT.XLS	
SoftMax Pro Importer XLS and XML	One year subscription to enable import of data into SoftMax Pro from an Excel-based template or XML file. Includes one	
Requires SoftMax Pro 6.4.1 or higher	activation key which expires after one year. Annual renewal. Part number: SMP.IMPORT.XLS.AND.XML	

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