



Let Tecan care about your routine data calculation

Magellan™ and i-control™ software for Tecan microplate readers

Magellan Tracker



21 CFR Part 11



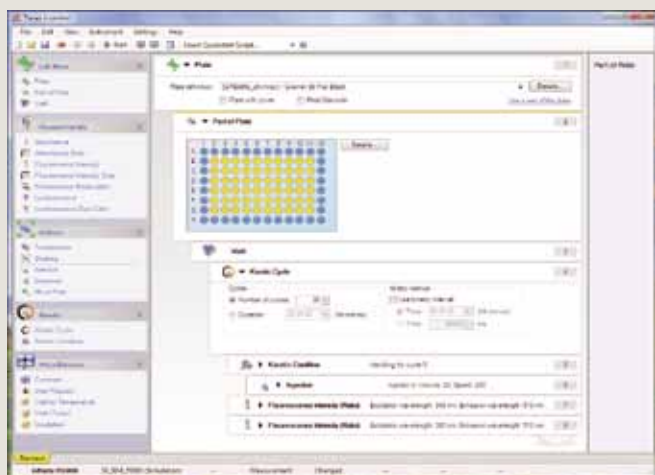
98/79/EC IVD-D

From basic control to sophisticated data management

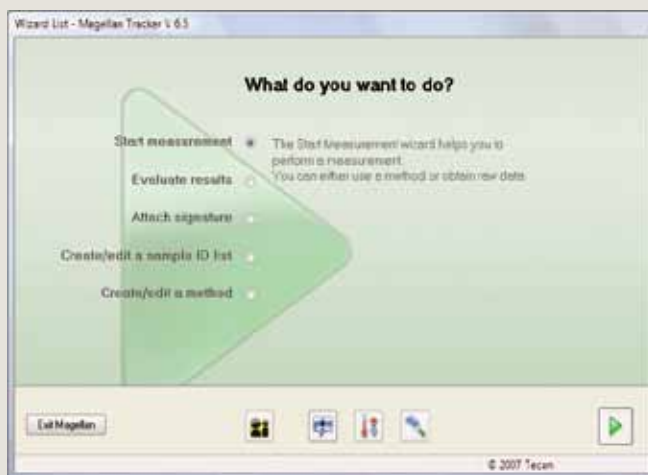
Tecan offers two software packages for its complete range of microplate readers – i-control and Magellan. While i-control is the operating interface for all of Tecan's Infinite® series readers, the Magellan software provides superior data reduction and data processing capabilities, and is compatible with all Tecan microplate instruments.

These packages make it possible to perform assay analysis in all major measurement modes, from absorbance to luminescence, including endpoint to kinetic, single wavelengths to spectra scanning, and ratiometric to multiplex assays. They also offer an interface to the Connect™ stacker system for batch processing and to Tecan's automated workstations.

Both software packages have been designed, tested, verified and validated according to certified quality standards, ensuring the technical compliance and integrity of the electronic data generated. Tecan's commitment to continuous improvement is demonstrated by certification of the software to the ISO 9001:2000 and ISO 13485:2003 quality system standards.

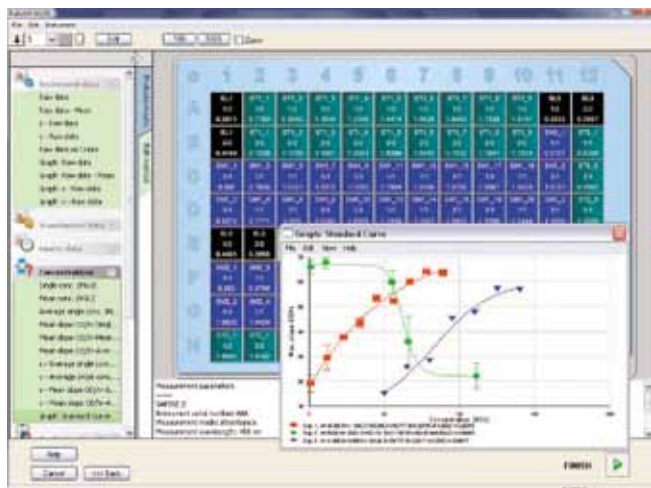


Workflow oriented i-control software for basic control of Tecan's Infinite series readers.



Magellan reader control and data reduction software, showing the Magellan Tracker Wizard list.

Magellan, Tecan's universal data processing software, is available for our complete line of microplate readers. It offers powerful data analysis capabilities, excellent data presentation and outstanding graphical flexibility. Magellan is fully compatible with Tecan's automated Freedom EVO® and Freedom EVOlyzer® liquid handling workstations.



Presentation and evaluation of data from multiple experimental groups on a microplate.

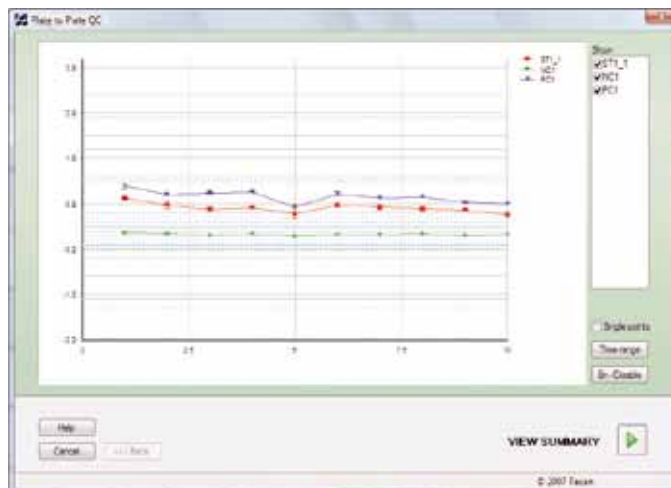


Plate to plate QC – Levy-Jennings graph displays the statistical data of a defined data set or time frame.



FP standard c

The software is available in the following two versions:

Magellan Standard, which is intended for research use, offers high flexibility for endpoint, kinetic and multi-label assays in drug discovery, life science research, assay development and screening experiments.

Magellan Tracker offers the same functionality but with obligated user administration, audit trail and electronic signatures. It is therefore designed to meet the requirements for GxP-critical environments and the FDA regulation 21 CFR part 11 for electronic records and signatures, as well as the European Directive 98/79/EC for in vitro diagnostics (IVD-D).

Easy to learn

A number of video-based tutorials are provided with the Magellan package for immediate access to the software's broad capabilities. A wizard-based user interface guides you through the software, step by step, putting you in complete control from the start. The software has a variety of example files available for different application-related data functions, such as dilution series, transformations and standard curves.

Secure data handling and process control

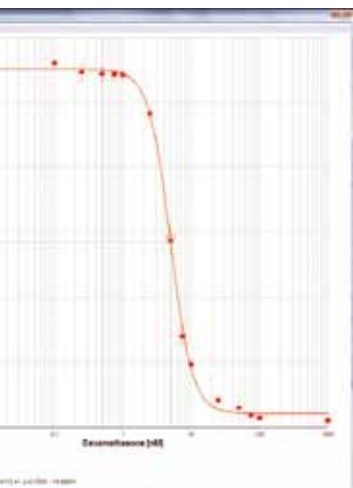
Magellan complies with ISO 13485:2003 requirements, meeting industry standards for its use, data integrity and security. Multilevel user management with password protection is optional for the Standard version, but obligatory in Magellan Tracker. Changes made in the software form part of the audit

trail records and cannot be overwritten, therefore assuring full traceability, data security and integrity at any time.

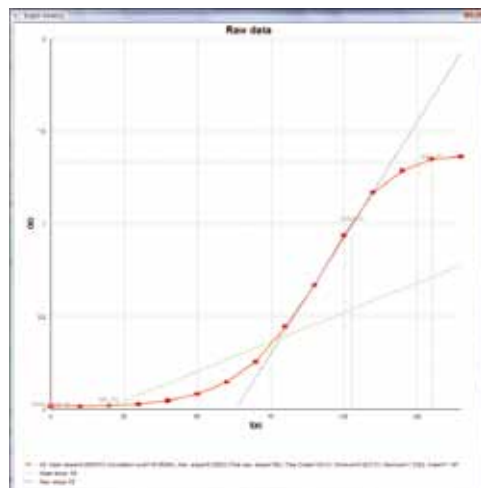
Magellan also includes a plate-to-plate quality control tool to track and store quality values and calibration curve data. Based on the Westgard multirule, where control results are compared against the expected mean and standard deviation, you can easily judge the acceptability of an analytical result.

Sophisticated functions of Magellan

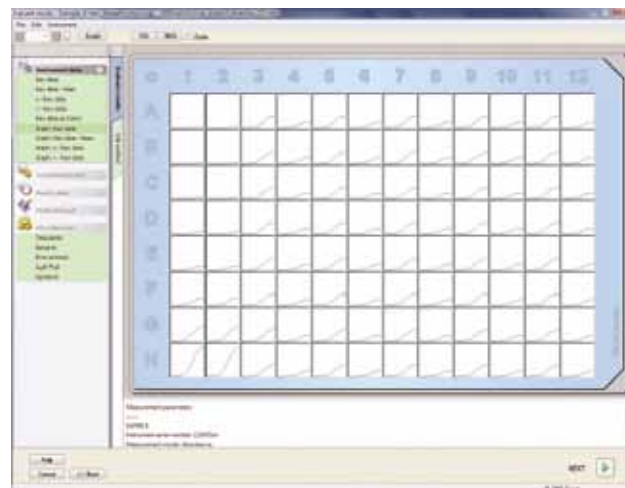
- Performs full qualitative and quantitative EIA analysis.
- All major curve fittings are provided – point to point, linear regression, non-linear regression, polynomial, cubic spline, Akima, LogitLog, four- and five-parameter fit.
- Convenient handling of dilution series and IC_x calculation.
- General data import and export options as well as automated import of sample ID lists.
- Kinetic data analysis with calculation of slopes, onsets and enzyme kinetics; calculation of Michaelis-Menten constant according to Lineweaver-Burk, Eadie-Hofstee and Hanes equations.
- Spectra calculation provides rapid background correction, curve smoothing, wavelength selection, peak identification and 3D scanning tools.
- Plate definition editor allows creation of customized plate geometry files.



curve with IC50.



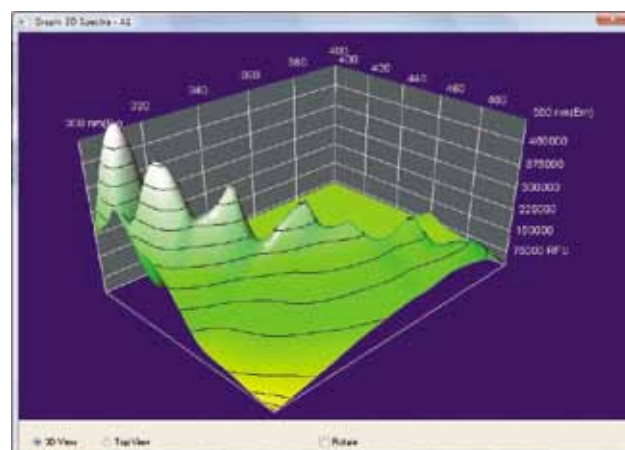
Example for kinetic data reduction.



Example of a kinetic measurement.

Key highlights of Magellan

- **Ideal for many different microplate-based applications** – such as ELISAs, endpoint assays, kinetic assays, ratiometric measurements, multi-label measurements and scanning.
- **Provides fast analysis capabilities** – from data reduction and curve fitting to calculation of kinetic parameters, such as the Michaelis-Menten constant.
- **Quality validated** – complies with ISO 13485:2003 requirements and meets industry standards for its use, data integrity and security.
- **Optional extra** – can be supplied as the Standard or Tracker version for all Tecan readers.
- **Data security** – Magellan Tracker (FDA 21 CFR Part 11 and 98/79/EC IVD-D compliant) provides audit trail, electronic signatures, electronic records and user administration.
- **Getting started** – learning tutorials, example files and different languages are available.
- **Convenient automation** – adds full data analysis capacity to Tecan's automated Freedom EVO and Freedom EVOlyzer processing systems.
- **Fully backwards compatible** – suitable for all Tecan microplate readers.

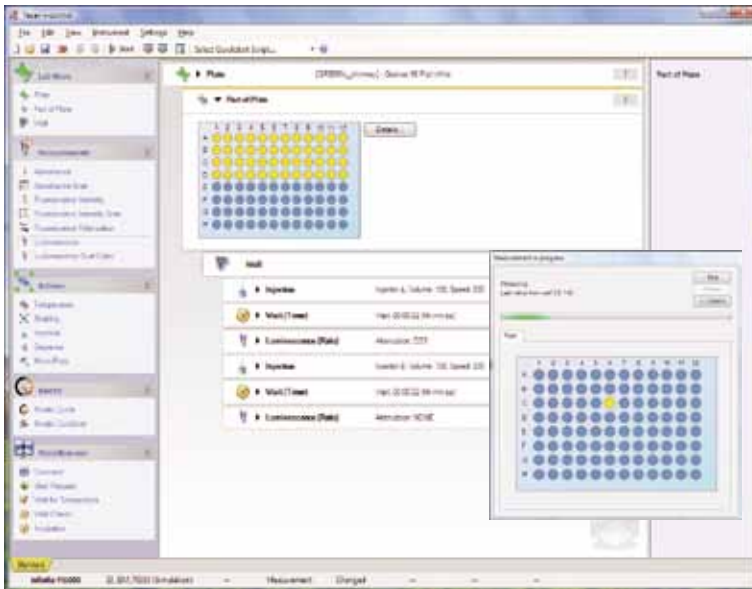


3D scanning feature for Infinite M1000 enables characterization of unknown samples.



A number of video-based tutorials are provided with the Magellan software package.

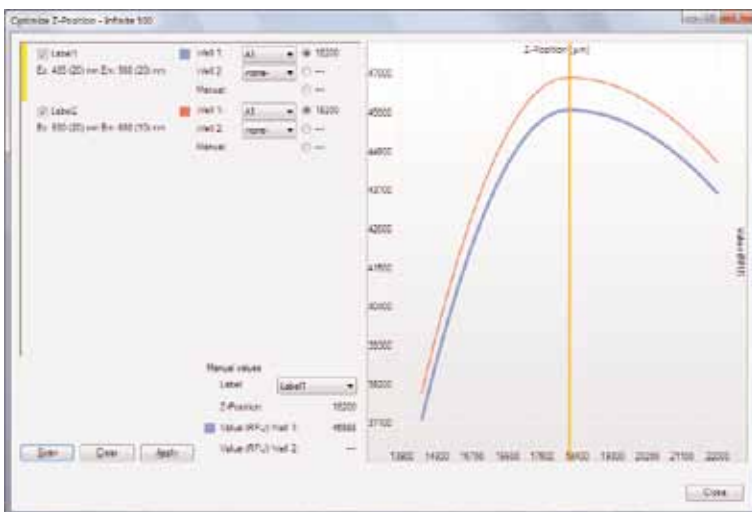
i-control software comes as standard with all Infinite microplate readers for quick and easy instrument operation. Its simple, flexible user interface allows you to choose and create application-oriented measurement scripts for what-ever combination of processing steps you require. The workflow is clearly visible to the user and can be saved for future use. All data are exported to Windows®-compatible formats (Excel®).



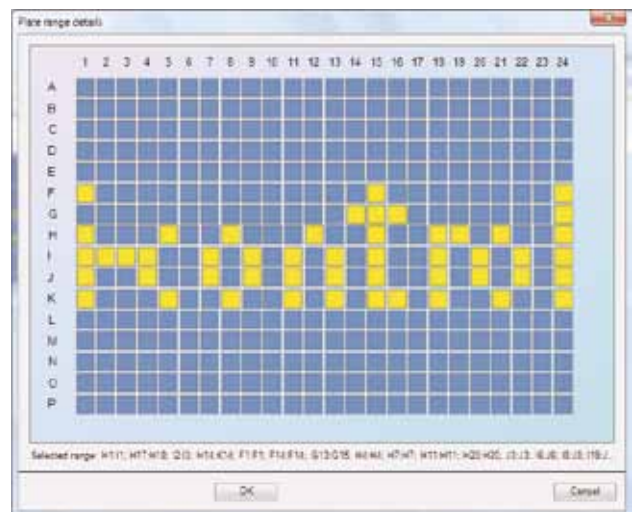
Key highlights of i-control

- **Workflow-oriented flexibility** – allows you to compile your own application workflow using simple 'drag and drop' to build your command sequence.
- **Online data presentation** – provides immediate review and analysis of your measurement data.
- **Supports all integrated detection techniques** – including absorbance, luminescence and fluorescence (eg. TRF, FP, HTRF®).
- **Quality validated** – complies with ISO 13485:2003 requirements and meets industry standards for its use, data integrity and security.
- **Compatible with automated workstations** – allows the reader to be incorporated within Tecan's liquid handling platforms.

Typical workflow in i-control for luminescence measurements with injectors.



Optimize z-position in i-control connected to an Infinite F500.



Free selection of measurement areas on the plate.

i-control & Magellan – Comparison of software features

	i-control	Magellan Standard	Magellan Tracker		i-control	Magellan Standard	Magellan Tracker
Data generation / instrument control				Data analysis features			
Infinite F50		✓	✓	Kinetic data reduction			
Infinite 200 PRO	✓	✓	✓	Mean and maximum slope		✓	✓
Infinite F500	✓	✓	✓	Correlation coefficient		✓	✓
Infinite M1000	✓	✓	✓	Time to onset		✓	✓
Sunrise		✓	✓	Minimum, maximum area		✓	✓
Data analysis features				Cycle subtraction		✓	✓
Standard curve types				Enzyme kinetics: Km and Vmax according to Hanes, Eadie-Hofstee, Lineweaver-Burk		✓	✓
Point to point		✓	✓	Data import			
Linear regression		✓	✓	Import of raw data		✓	✓
Non-linear regression		✓	✓	Sample ID lists		✓	✓
Polynomial		✓	✓	esy-, tpl-, dd1-, pro-, ape-, csv-, txt-files		✓	✓
Cubic spline		✓	✓	Data export			
Akima		✓	✓	Excel	✓	✓	✓
LogitLog		✓	✓	ASCII		✓	✓
Four/five parameters – Marquardt		✓	✓	XML	✓		
Standard curve analysis				FDA 21 CFR part 11 / 98/79/EC IVD-D compliance			
IC ₅₀ calculation		✓	✓	User administration		✓*	✓
Extrapolation		✓	✓	Authority checks of users (login and password)		✓*	✓
General calculation features				Add/modify users and groups		✓*	✓
Formula editor with basic functions		✓	✓	User rights		✓*	✓
Logical functions		✓	✓	Password expiry			✓
Numeric functions		✓	✓	Electronic signatures			✓
Statistical functions		✓	✓	Electronic records: audit trail for methods, data, standard curves, user administration			✓
Eliminate functions		✓	✓	Calculations referenced to MatLab® and Excel		✓	✓
Definition of constants		✓	✓	Full backwards compatibility		✓	✓
Definition of cut-offs		✓	✓	Converting files		✓	✓
QC validation		✓	✓	Archive files		✓	✓
Plate-to-plate QC – Levy-Jennings graph		✓	✓	IVD validated			✓
Spectra data reduction				General features			
Blank reduction		✓	✓	General view settings	✓	✓	✓
Smoothing		✓	✓	Demo modus	✓	✓	✓
Wavelength pick		✓	✓	Data report: list and matrix		✓	✓
Peak characterization		✓	✓	Password protection of methods		✓	✓
Spectra normalization		✓	✓	Plate definition editor	✓	✓	✓
Custom formulae		✓	✓	Interfaces			
Polarization data reduction				Robotic interface	✓	✓	✓
G-factor calibration	✓	✓	✓	Miscellaneous			
Blank reduction	✓	✓	✓	Example files		✓	
Calculation of polarization, anisotropy, total intensity values	✓	✓	✓	Tutorials		✓	✓
				Customization	✓	✓	✓
				Languages	✓	✓	✓

*optional

Austria +43 62 46 89 33 **Belgium** +32 15 42 13 19 **China** +86 10 5869 5936 **Denmark** +45 70 23 44 50 **France** +33 4 72 76 04 80 **Germany** +49 79 51 94 170
Italy +39 02 92 44 790 **Japan** +81 44 556 73 11 **Netherlands** +31 18 34 48 174 **Portugal** +351 21 000 82 16 **Singapore** +65 644 41 886 **Spain** +34 93 490 01 74
Sweden +46 31 75 44 000 **Switzerland** +41 44 922 89 22 **UK** +44 118 9300 300 **USA** +1 919 361 5200 **Other countries** +41 44 922 8125

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