

Ascent Software®

Windows-based Ascent Software is designed to power all Thermo's Ascent microplate research instruments. Whichever Ascent microplate instrument you use, the highly visual Ascent Software always looks the same, providing familiar and flexible control.

Clear and easy-to-follow approach

Ascent Software is divided into two major desktops – the Procedure and the Results Desktop. The Procedure Desktop is designed to control the instrument and it also allows easy arrangement of assay steps. The Results Desktop, which is a special spreadsheet environment, offers numerous options for specific data handling and graph formulation.

Highly visual assay setup

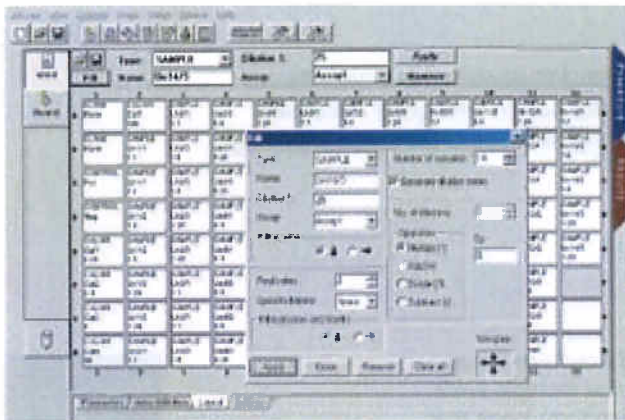
The assay procedure is created in the Procedure Desktop. The step properties can be modified to meet the needs of the application. Assay procedure steps, such as measure, dispense, shake, incubate, save/load, dispense and measure, print, as well as customized pause steps, are set with the drag-and-drop technique. The desired steps are selected from the on-screen toolbox and moved to the assay steplist. The steps can be customized for assay

optimization and execution specified for individual or multiple wells. The steps can also form loops that can be completed for the defined target area before moving on to the next step. Multiple plate processing is time saving and cost effective when the calibrators are defined on the first plate, and then used to calibrate subsequent plates, which contain only samples.

Effective robotic integration

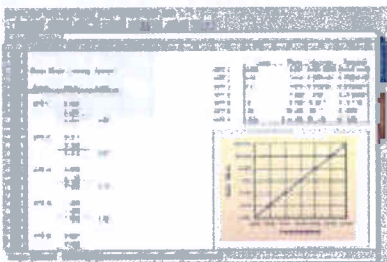
User-friendly robotic integration is simple and effective. Ascent Software enables easy integration with robots, and with HIS/LIMS systems. The execution of predefined assays can be controlled remotely by changing files between Ascent Software and the host system. This application is fully independent of the operating or network system used to control the computer.





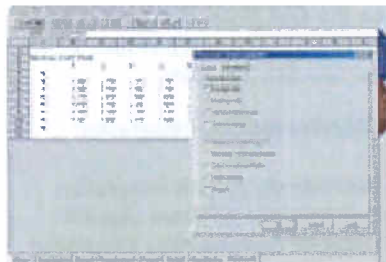
Automatic data processors

Easy-to-use results handling, such as curve fit, qualitative cut-off and a wide selection of kinetic processors, make data handling truly user-friendly. Measurement data can also be precalculated prior to obtaining the required curve fit or qualitative analysis. User-defined sheets allow limitless flexibility for further calculations and customized report formatting.



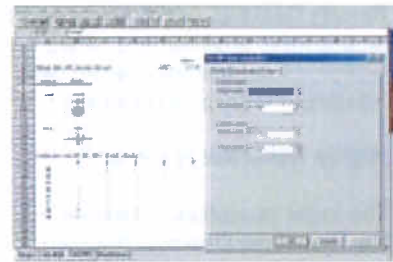
Quantitative curve fit

Testing the suitability of various curve fits (linear regression, 2nd to 4th degree polynomials, point to point, cubic spline and several types of four parameter logistics) and changing them to meet the specific needs of an application is simple. As you change the fit type and transformation, you can immediately see the results of the curve fitting. Options as to what will be printed on the report can be selected from the curve fit sheet.



Effective kinetic processors

In kinetic measurements, 11 different processors, such as average rate, maximum rate, time to maximum rate and time to change, can be selected depending on the assay's needs. These processors calculate the measurement data to separate spreadsheets, and the calculations best suited for the assay can be processed further.



Qualitative cut-off

Automatic calculation of cut-off according to user-defined limits and interpretations is straightforward. Cut-off can also be added to the curve fit sheet, and the user can define up to 4 limits to the cut-offs with their individual interpretations.

| Features by Instrument | Fluoroskan Ascent FL | Fluoroskan Ascent | Luminoskan Ascent | Multiskan Ascent | Multiskan EX | Nepheoskan Ascent |
|--|----------------------|-------------------|-------------------|------------------|------------------|-------------------|
| Template editor for different plate sizes | yes | yes | yes | yes | no | yes |
| Measurements | | | | | | |
| Multipoint measurements | yes | yes | yes | no | no | no |
| Single | X | X | X | X | X | X |
| Dual | X | X | X | X | X | |
| Kinetic | X | X | X | X | X | X |
| Dual kinetic | X | X | X | X | X | |
| Scanning | X | X | X | | | X |
| Monitor | X | X | X | | | X |
| Dispensers | | | | | | |
| Number of dispensers | 0 to 3 | 0 to 3 | 0 to 3 | 0 | 0 | 0 or 1 |
| Simultaneous dispensing and measuring | X | X | X | | | |
| Shaking | | | | | | |
| Interval shaking | X | X | X | X | X | X |
| Adjustable shaking speed | X | X | X | X | X | X |
| Adjustable shaking diameter | X | X | X | | | |
| Incubation | RT +3°C – 45°C | RT +3°C – 45°C | RT +3°C – 45°C | RT +3°C – 50°C | | RT +3°C – 45°C |
| Kinetic processing | | | | | | |
| Average rate | X | X | X | X | X | X |
| Maximum rate | X | X | X | X | X | X |
| Time to maximum rate | X | X | X | X | X | X |
| Time to maximum rate / 2 | X | X | X | X | X | X |
| Time to change | X | X | X | X | X | X |
| Maximum of well (Peak) | X | X | X | X | X | X |
| Maximum – Minimum (Change) | X | X | X | X | X | X |
| Time to maximum (Peak) | X | X | X | X | X | X |
| Time to maximum (Peak) / 2 | X | X | X | X | X | X |
| Select reading | X | X | X | X | X | X |
| Integral | X | X | X | X | X | X |
| Cut-off analysis with 4 limits 5 interpretations | X | X | X | X | X | X |
| Curve Fits | | | | | | |
| Linear regression (LLS) | X | X | X | X | X | X |
| Linear regression (SVD) | X | X | X | X | X | X |
| Quadratic polynomial | X | X | X | X | X | X |
| Cubic polynomial | X | X | X | X | X | X |
| Quartic polynomial | X | X | X | X | X | X |
| Point to point | X | X | X | X | X | X |
| Cubic spline | X | X | X | X | X | X |
| Four parameter logistic | X | X | X | X | X | X |
| Sigmoid logistic | X | X | X | X | X | X |
| Automatic ratio calculation | X | X | X | X | X | X |
| Sessions | | | | | | |
| Execute session in group of | 1 – 384 wells | 1 – 384 wells | 1 – 384 wells | 96 & 384 wells | 8, 16 & 96 wells | 1 – 96 wells |
| Number of sheets in a session | 85 | 85 | 85 | 85 | 85 | 85 |
| Multiple curve fits in a session | X | X | X | X | X | X |
| Multiple reports in a session | X | X | X | X | X | X |
| Multiple graphs in a sheet | X | X | X | X | X | X |
| Manual and automatic data exporting | X | X | X | X | X | X |
| Remote control | X | X | X | X | X | X |

System Requirements

| | |
|------------------|---|
| Hardware | IBM PC compatible computer with Pentium processor, 128 MB RAM, SVGA display, CD-ROM drive, 200 MB free hard disk, 1 buffered (16550 AF) serial port |
| Operating system | Windows, 98 and Me, Windows NT 4.0, Windows 2000 and Windows XP Professional |

→ Ordering information on pages 54–55.