

CX – ASI

The CX-ASI (Automated Sample Identification) for the Cedex 2 Software provides the possibility for importing sample identification data from an external database. The structure of the XML interface file can be modified to suit individual needs. To extract the data from an individual database, an external application is needed. Ask about the possibilities for setting up a project to integrate our systems into your interface.

Today, productivity and effectiveness are increasingly key issues for the development of products. The focus on "the essential" needs to be sharpened. The goal for innovatis AG is to analyze and improve technical workflow patterns so that the customer can achieve cost reductions – in materials and/or in employee time. Innovatis AG understands these customer requirements and has taken them into account in the development of their product range. The new Cedex 2 Software gives the user a tool that satisfies all workflow needs, from the user-friendly graphical user interface to the possibility of partial automation of individual routines to data management in existing LIMS and Scientific Documentation Management systems (SDM).

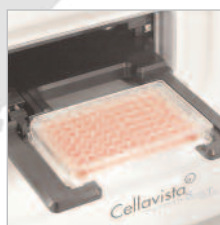
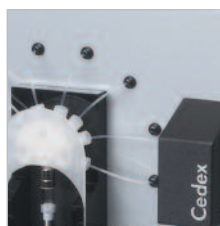


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QUALITY THAT COUNTS

Quality that counts

innovatis AG, headquartered in Bielefeld, Germany, specializes in integrating lab processes and automating cell culture analysis.

Based on proven technology, we offer the best range of product solutions for research, pharmaceutical and biotechnology industry – all over the world. Individual service packages complete the product portfolio dedicated to customers' needs.



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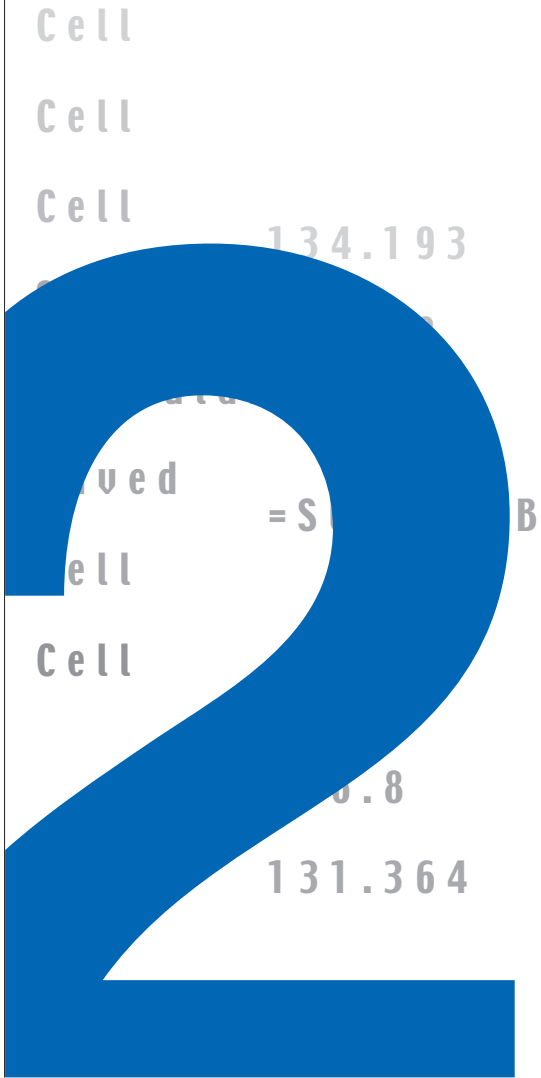
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Cedex 2

Software



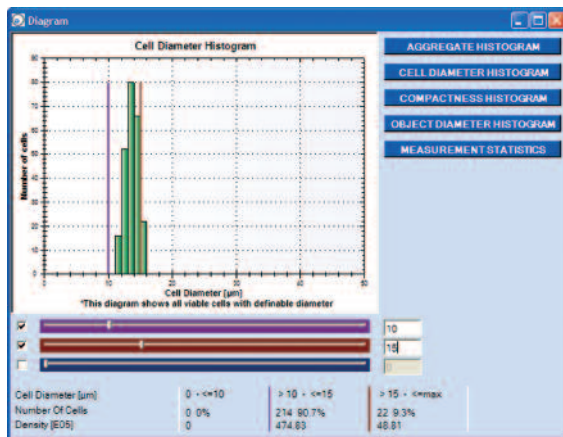
1.25



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Cell Diameter and Compactness Histograms

The diameter and compactness (circularity) of each cell in a sample is analyzed, and the results are displayed in the form of histograms. This allows the user to monitor the morphological state of the cell culture. Get a fast overview of the most important morphological parameters within seconds thanks to the intuitive Cedex user interface.



Scheduler

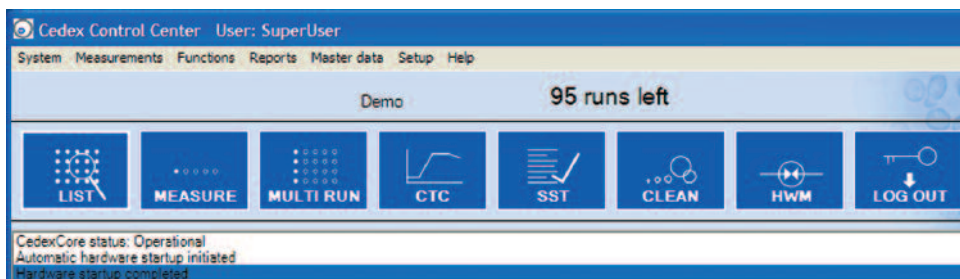
Cleaning and maintenance routines can be scheduled to be automatically carried out at a specific time or after a specific number of events. This means...

- Time savings
- Optimized workflow
- Transparency

Process	Schedule Type	Days/Event Cou	Schedule Time	Event	User
ChangeClean	After an event	1	07:00:00		SuperUser
StandardClean	After period of 5	1	17:50:00	After measure	SuperUser
ShutdownLM	After period of 5	1	18:00:00		SuperUser

Aggregate Histogram

Detailed information about the number of cells found in aggregates of different sizes is displayed in the "Aggregate Histogram". Monitor cell cluster occurrence with these histograms.



Control Center

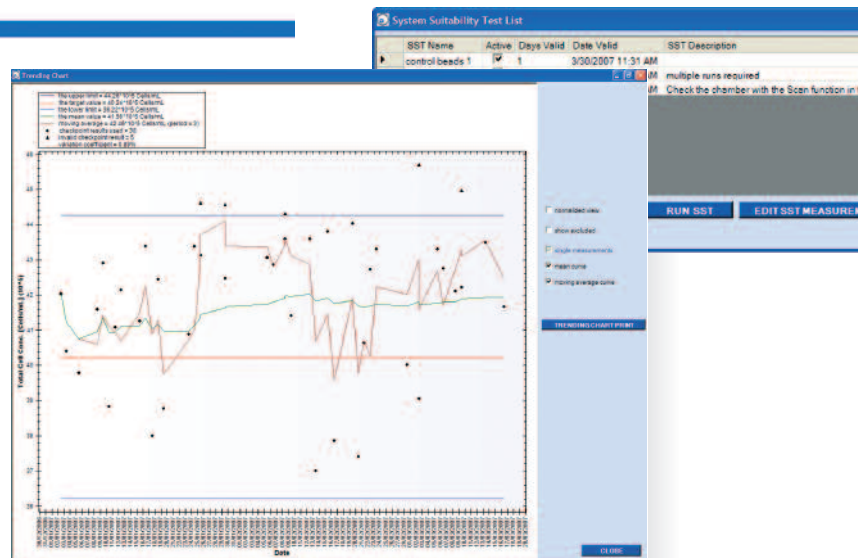
The new GUI (Graphical User Interface) combines a modern design with user-friendly functionality.

The Cedex 2 Software

is a technical advancement on the current operating software for the Cedex product family. This software* is the result of an extensive collaboration between innovatis AG application specialists and Cedex users from the pharmaceutical industry. The Cedex 2 Software represents the most future-oriented and user-friendly software available on the market today for various applications of image-based cell culture analysis performed by Cedex systems.

So that everyone can benefit from the new software advantages, the Cedex 2 Software can be retro-fitted into Cedex systems already in place at customer sites. For systems requiring re-validation with the new software, innovatis AG can provide consulting, service and appropriate documentation so that a new risk assessment can be made.

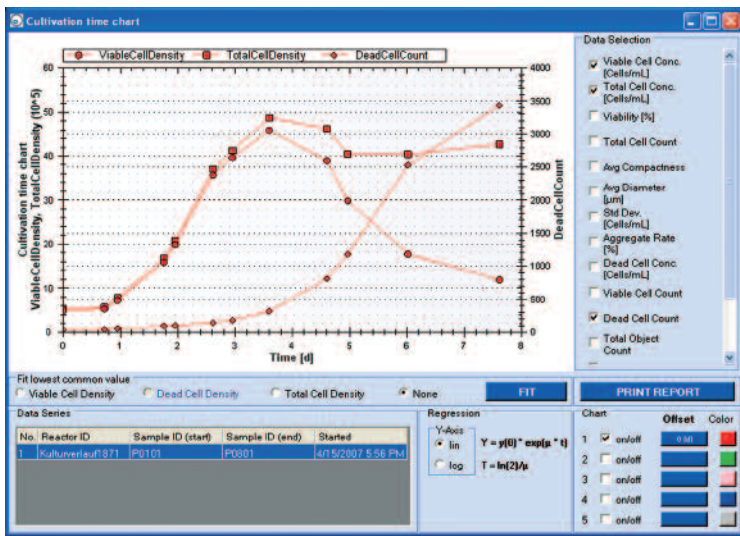
* Operates with Cedex analyzers (Cedex / Cedex HiRes)
Operating system Windows® XP /
Intel® Pentium 4 Architecture



System Suitability Test – Security with computer-aided determination of system suitability

The suitability of a system can be reliably proven with the use of the System Suitability Test (SST). The SST is defined by the user and can be created with the use of several components known as checkpoints. A defined checkpoint can involve either a defined set of measurements or a set of actions (such as visual checks) that should be carried out. The results of the measurements over time, as well as the placement of the results within freely defined upper and lower limits, can be graphically displayed in order to help the user track results over time and define future SST checkpoints. Irregularities can be detected early through so-called "Trending". This provides the possibility for the detection and correction of potential errors before it's too late.

- Traceability
- Confidence in results
- Security



Cultivation Time Chart

Results of single measurements can be combined to create time course diagrams using the "Cultivation Time Chart" (CTC). Cell growth curves – as well as other parameters such as cell diameter and compactness – can easily be compared at a glance. In addition, the specific growth rate (μ) and doubling time (T) can be automatically determined via the Exponential Regression chart.

Process Date	Passed	Control
3/29/2007 11:31 AM	<input checked="" type="checkbox"/>	Autom.
3/29/2007 11:32 AM	<input checked="" type="checkbox"/>	Autom.
3/29/2007 11:31 AM	<input checked="" type="checkbox"/>	lock

Multi View

Multiple measurement windows, containing images and results from different samples, can be opened simultaneously to allow for easy comparison of results.

One panel – one function
 Each function is performed in a separate window.

Live Operator

The Cell Type parameters for analyzing cells can be optimized with the use of promptly analyzed images. The results from the changed settings are immediately displayed on the image itself and can be compared to the results from the original settings. Now it is much easier to quickly get the optimum cell type parameter settings!

Measurement

Sample identification parameters: Reactor ID: G037D5001, Sample ID: G037D5001, DateSet: Default, Dilution: 1, Volume [µL]: 300

Processing parameters: Sample port: Multi Channel, Cup position: Standard, Cell type: Std. Size (FVM), Precision: High, Multi Run ID: 1, Tray: Standard, System Name: G037D5001, Process time: 12/11/2008 11:06:39

Result Date	Aggregate Rate [%]	Total Cell Count	Std Dev. [Cells/mL]	Total Cell Conc. [Cells/mL]	Dead Cell Conc. [Cells/mL]	Viable Cell Conc. [Cells/mL]	Viability [%]
7/29	7.89	0.65 * 10 ⁵	4.74 * 10 ⁵	0.02 * 10 ⁵	4.71 * 10 ⁵	100.0	

Measurement

Sample identification parameters: Reactor ID: G037D5001, Sample ID: G037D5001, DateSet: SST Measurement, Dilution: 1, Volume [µL]: 300

Processing parameters: Sample port: Multi Channel, Cup position: Standard, Cell type: Std. Size (FVM), Precision: High, Multi Run ID: 1, Tray: Standard, System Name: G037D5001, Process time: 12/13/2008 09:34:28

Result Date	Aggregate Rate [%]	Total Cell Count	Std Dev. [Cells/mL]	Total Cell Conc. [Cells/mL]	Dead Cell Conc. [Cells/mL]	Viable Cell Conc. [Cells/mL]	Viability [%]
12/11	0.71 * 10 ⁵	8.48 * 10 ⁵	0.09 * 10 ⁵	8.40 * 10 ⁵			

Operational Data

Overall

Operating hours: 0 (RESET) 23.72

Number of measurements: 0 (RESET) 176

Liquid consumption (mL)

Name	Value	Name	Value
Ethanol	0	Ethanol	54.69
Trypan Blue	0	Trypan Blue	78.48
Cedex Deterge	0	Cedex Deterge	59.27
Water	0	Water	1335.27

Operational Data Counter

For the cost-conscious user, the Operational Data Counter provides the possibility to track the hours of operation, the number of measurements run and the reagent consumption. The Cedex 2 software thus offers information on the efficiency of the system at any time.

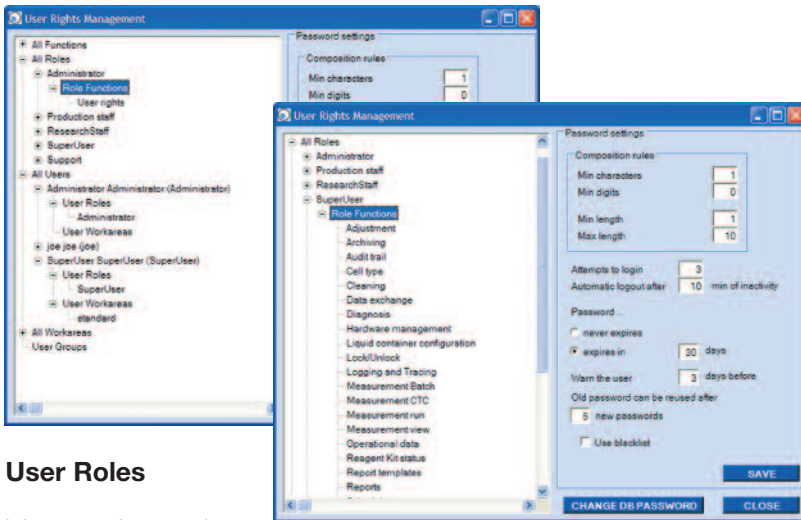
User Preferences

Parameter	Value	Description
SampleVolume	300	Default user value - SampleVolume for a new Measurement
DefaultCombinedNumber	4	The number of images combined to make a bar (depends on the number of Combined Image Count Ed
standard		Default user value - Workarea name for a new Measurement
R0002		Default user value - ReactorID for a new Measurement
Very High		Default user value - MeasurementPrecision for a new Measurement: Low/Medium/High
Min. Size (FVM)		Default user value - CellType Name for a new Measurement
1:1		Default user value - SampleInitialDilution for a new Measurement

Easy Customization

It is now possible to alter the settings for the system options directly within the application. This allows users to adapt the system to their individual needs without assistance from a third party.

- Choose individual user preferences
- Get easy access to process parameters



User Roles

It has never been easier to define user hierarchies:

- Roles can be easily assigned via mouse click
- Users can be added at any time
- Rights are updated automatically

Drag & Drop Administration

This management tool allows for the creation of different roles with appropriate rights and levels of access. Roles that have been created can be assigned to multiple users by a simple Drag & Drop feature.

When a role is updated with new functions, the rights of all the users assigned to that role are automatically updated. User rights and levels of access can be easily adjusted for each role to suit individual needs! The goal is to have a stable and dependable system operating under optimal access conditions.

For example, one could create:

- The Administrator role, which could have the ability to access User Rights
- The Research Staff role, which could have more rights such as running measurements and maintaining the system

Database Filter

Measurements are stored in a database that can be searched using various key parameters as filters.

Filters that can be used for searching for measurements include measurement date, user name, Reactor ID and Sample ID.

Selected measurements can then be viewed, reprocessed, printed and exported directly from the Measurement List window.

