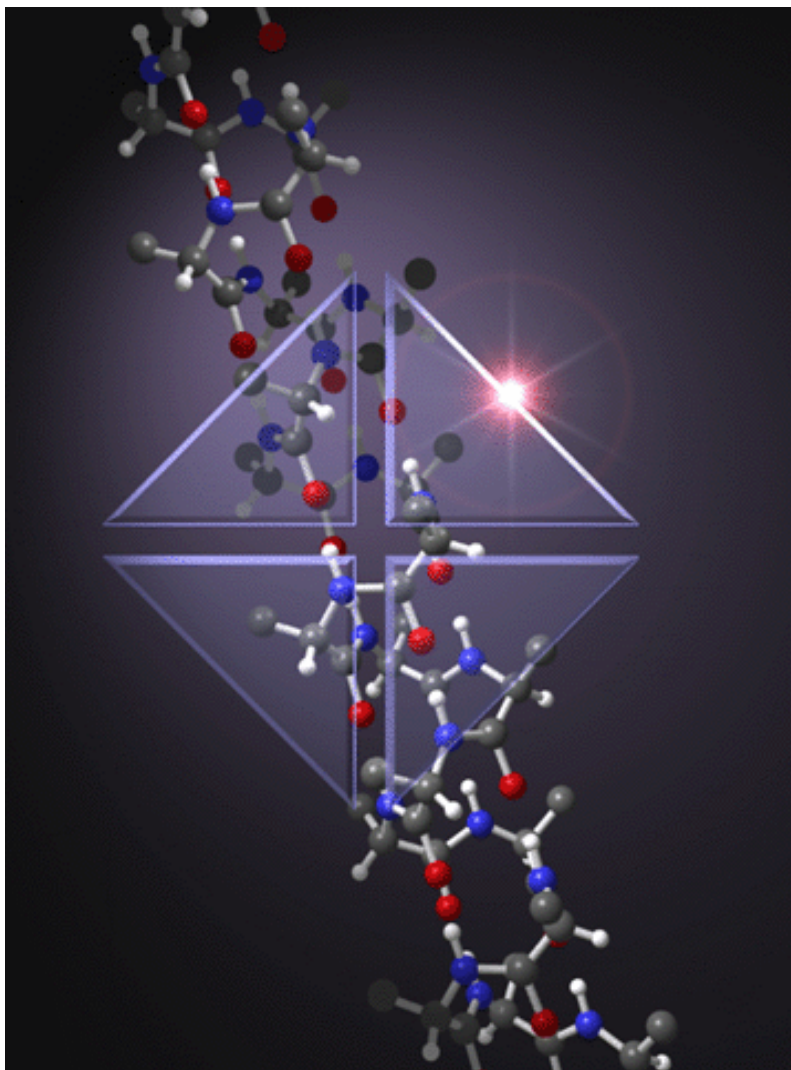


UNICORN 4.12 vs 4.0

(including version 4.01 and 4.11)



Introduction

This document describes the implemented changes and improvements in UNICORN™ 4.12 compared to version 4.0. The document also describes the changes that were implemented in versions 4.01 and 4.11.

UNICORN version 4.01

Installation options

- The strategies are filtered in categories, e.g. Explorer, Purifier, Bioprocess™ etc.
- Long filenames can be used for the strategies.

Oligo

- The allowed starting bases in the 3' position now also includes extra bases Q, Z, X and Y.
- The system can be set up to include an automatic pause in the beginning of a method.

UNICORN version 4.11

Installation options

- Selected user manuals can be installed as part of the program installation process.

User information/Help functions

- The UNICORN user manuals have been restructured.
- The installed selected user manuals can be accessed via the **Help** menu in the **Main Menu** module.
- The online help has been improved with search functions and full alignment with the user manuals.
- An introduction to the software (Getting Started with UNICORN 4.10) has been added as a separate manual.
- The software license number is displayed in the **About** dialog box.
- A hyper link to the Amersham Biosciences web site is available in the **About** dialog box.
- The toolbar guide function is removed.

User interface

- All dialog boxes have been optimized for a screen resolution of 1024x768.
- A standard bar code reader can be connected to the system.
- Search paths are remembered in dialog boxes for **Open**, **Copy** and similar functions.
- Short-cuts to dialog boxes to create new methods and methodqueues are available on the right-click menus in the **Main Menu** module.
- Alarm, Warning and Error entries are color-coded.
- Thick lines is the default selection for all prints.
- Blocks that are repeated in a method are only printed once in expanded view. Subsequent identical blocks are not shown expanded in the prints.
- Time Zone is indicated whenever time is displayed (except in the **Main Menu** module).

User Setup

- The length and style of fraction injection and event marks can be conveniently set in a dialog box.
- A user option can be set where a column is prompted before a manual run can be started (Column protection mode).
- The user can select an option to have a default overwrite of baselines and tables.

System administration/user settings

- Access levels for calibration of individual monitors can be set.
- The system can be defined to be available for view only on a user and system level.
- A system can be defined to be accessible in remote mode only.
- The current UNICORN card settings in the registry can be displayed.
- A default sound for the **Message** dialog can be assigned in the User settings.
- Information about the following settings can be created for backup purposes and restored:
 - User settings,
 - Global procedures,
 - Global BufferPrep recipes,
 - Global column list,
 - Global report formats.
- Earlier versions of the user settings can be edited.
- The system table can be displayed and printed.
- Service mode is no longer included in the Access levels.
- The system administrator can prohibit the ability to access protected UNICORN-files via Windows Explorer.
- The user name cannot be used as a password (with the exception for the **default** user).
- The signature password must be different from the logon password.

Audit trails

- Several Audit trail files can be opened at the same time.
- A search function to find text strings in the Audit trail file has been added.
- The computer where the user logs on is recorded at the time of the log on.
- An Audit trail file can be opened from any path.
- The locking and unlocking of the system is logged.
- Each time a method or a result file is saved is logged in the Audit trail.
- Each time a method or a result file is saved with another name, using the Save As command, is logged in the Audit trail.
- Maintenance activities can be filtered out.

Operational features

- Acceptance criteria can be set for a result. The run can be stopped and a message will be displayed if the acceptance criteria are not met.
- A **Pause_Timer** function can be set.
- Unused blocks can be deleted from the method by using the delete button or the right mouse button.
- Active **Watch** commands are indicated.

Variables

- Detail variables are indicated.
- Variables can be deleted, renamed and changed to and from details.

Scouting

- Scouting detail variables are indicated.
- Scouting variables can be deleted, renamed and changed to and from details.
- A scouting run can be added while another scouting run is in progress (except during the last run of the scouting scheme).

Messages

- A message that require a signature can be set up. The signature is recorded in the logbook including the full name, position and user name, and also the significance of the signature. The message dialog box can have “Continue” as an option to proceed with the run. A specific sound can be assigned to the message.

Snapshots

- Snapshots recording current values can be set up and/or recorded in the Method Editor, in System Control or the Evaluation module.

File handling

- A result file or method file cannot be opened from two locations simultaneously.

Column list

- The molecular weight range for a column can be entered.
- The pressure limit for HiPrep has been changed to 0,15 MPa.
- The technique for HiPrep 16/10 ANXFF (high sub) has been corrected and is now anion exchange.
- The column list can be filtered to show columns by technique.

MethodQueues

- The user has the option to place a method in a MethodQueue when the system is running another method.
- MethodQueues can be started and placed in a queue when the system is busy.
- Systems may be connected in any order that the user finds convenient.
- The individual order of the methods placed in the queue can be changed (before the queue has started to run).
- A warning is issued if the method that is placed in a MethodQueue includes a Start Protocol.

Evaluation

- Simplified peak integrations with a new function button, **Save and edit peak table**.
- Different integration parameters can be set for different parts of the curve.
- The baseline settings, peak start, peak end and peak windows can be adjusted and set graphically with the mouse. Changes are effected immediately.
- Different integration parameters can be set for different parts of the curve in a procedure.
- Individual peaks can be displayed with different fill colors.

- Curves can be created graphically with the mouse. Changes are effected immediately.
- More than one Y-axis can be displayed in the window.
- The Set Ref Point function now also includes the Min, Max and Average value for an interval.
- The peak naming can be any combination of retention, number and peak name.
- The Evaluation log now also contains the following items:
 - Rename curve
 - Rename peak table
 - Create curve
 - Edit baseline
 - Normalize curve
 - Activity histogram
- Peaks can be printed colored with a fill color and/or pattern.
- Discrete curves and fraction marks can be exported.
- Files can be exported in true XLS format.

Fraction Histogram

- The Fraction Histogram can be displayed as a table.
- The amount and concentration in a fraction can be calculated.

Analysis module

- The lowest concentration level can be set as quantitation level 1.

Documentation features

- A search function to find text strings in the Logbook or the Notes has been added.
- The contents of the Logbook window can be filtered.
- The logbook overlay displays all items in a break point in flyover mode. A clear indication is present if there are more items than can be displayed in a particular break point, for all modes in the logbook overlay.
- The snapshots that are taken in the method or taken and saved during the run can be displayed.

- Unique file names can be generated by UNICORN.
- A batch number can be assigned at the start of a run.
- Batch id can be used to locate files by using the File Find dialog box in the Main Menu module.

Strategy changes (ver XXX310)

- Problems with self-oscillating outlet valves in Frac-900 and Frac-950 have been corrected.
- The component Sample Pump is now recognized also at the first run.
- The Flow for 10 ml systems now has three decimals instead of two.
- The default values for pressure limits have been corrected.

(Note: Strategies for FPLC300/FPLCF300 have not been updated.)

Templates

- The installation test for Basic 10, strategy B10_310 has been corrected.

Wizard

- The Wizards have not been changed.

Network functions

- Support for sockets network connection is added.
- The Method Wizard can be used on local systems also when there is no contact with the network server.
- At start up, when OCI copies files from the server, all files with Read Only status are noted. The Read Only status is automatically removed.

OPC

- Compliance with the OPC Data Access 2 specification.
- Partial compliance (compliance test not yet released) with the OPC Alarms and Events 1.0 specification.
- OPC Historical Data 1.0.

OLIGO

- Oligo characters can be copied and pasted to the sequence edit field.
- The **Sequence** page is shown as the first page when switching from text mode to documentation in the Method Editor.
- The following lines can be edited in the **unicorn.ini** file:
 - DMETHOD SEQUENCEMESSAGE OFF
ON includes a **Pause** in the method start and displays two messages.
OFF does not include this.
 - DMETHOD SEQUENCECHECK ON
ON checks if the sequence is using two different bases from the same physical position. If not allowed bases are used in the 3' end.
 - DMETHOD SEQUENCEPASTE OFF
ON allows a sequence to be pasted into the **Sequence** page using Copy & Paste.
- The **Sequence** page has a new layout with modified button names: Create Method, Save Seq., Open Seq., Delete Seq., Cross Reference.

UNICORN version 4.12

Version 4.12 addresses technical software improvements compared to version 4.11 and does not contain any functional changes.

System Control

- If an instruction is used from the flowchart the System Control module may terminate. This problem is now corrected.
- The performance of the System Control module, when displaying the System Access toolbar and used in a network environment, has been improved.

Evaluation functions

- Problems with empty printouts from automatic evaluation procedures have been corrected.
- Trying to make a second subtract after using the command “Undo subtract” has caused the Evaluation module to terminate. This problem has now been corrected in version 4.12.
- Results expressed in microliters may cause calculation errors during integrations where Column Volume is used. This is corrected in version 4.12.
- Evaluation procedures have not worked for results with a microliter or nanoliter base. This is corrected in version 4.12.

Locked files

- Results and method files with paths and filenames exceeding a total of 100 characters have become locked and impossible to open. This has now been corrected

Frac-950

- The Start Protocol has been corrected so that the Frac-950 settings can be edited.
- Problems to download the rack configuration have been corrected.

Method files

- The template methods in C:\unicorn\local\strategy\systemX have been named with a double dot. This has been corrected in version 4.12.

AT card functions

- Systems operating with AT cards can now handle message instructions in methods.

- The Snapshot function is not compatible with the AT card and is now not accessible for AT systems to avoid confusion.

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Amersham Biosciences AB
Björkgatan 30
SE-751 84 Uppsala
Sweden

Amersham Biosciences Europe
GmbH
Munzinger Strasse 9
D-79111 Freiburg
Germany

Amersham Biosciences China
Limited
13/F., Tower I
Ever Gain Plaza
88 Container Port Road
Kwai Chung, New Territories
Hong Kong

Amersham Biosciences UK Limited
Amersham Place
Little Chalfont
Buckinghamshire
England HP7 9NA

Amersham Biosciences Corp
800 Centennial Avenue
P.O. Box 1327
Piscataway, NJ 08855
USA

Amersham Biosciences K.K.
Sanken Building, 3-25-1
Hyakunincho, Shinjuku-ku
Tokyo 169-0073
Japan.

www.amershambiosciences.com

