Valab®
Version 14

Main Improvements

This document lists the main improvements of Valab 14.01. For a full list of all the modifications made to Valab 14.01, please refer to the corresponding Release Note for this version.

Architecture and environment

Groundwork on the API

Version 14 of Valab benefits from many fundamental improvements in preparation for an interoperable API (application programming interface) to prepare the way for extended remote setup and consultation possibilities in future versions of Valab.

In some cases, the impact of this work is already visible (simultaneous setup from more than one Valab client, improvements to certain windows and functionality, performance improvements, . . .), other enhancements will be visible in future versions of Valab.

Simultaneous setup from more than one Valab client

With Version 14 of Valab, more settings can be configured at the same time from different client workstations.

Valab Server manages this situation by warning the users concerned that concurrent modifications are being made from another workstation.

The user thus warned can either accept the modifications of the other user, or continue with their own modifications.

This evolution therefore allows parallel modification of all of the Valab settings, except for the following settings:

- Auto-Expert test settings
- correspondence table settings
- user administration settings

Rationalised backup of environment files

The backup of environment files is no longer managed directly by Valab. This evolution, demonstrated by the disappearance of the Backup button in the Valab main window, clarifies the responsibilities and the management of this particular process. In this way the laboratory can control this process while at the same time taking advantage of the guidance of the VALAB Technical Support team if required.

Management of the client-server connection

Creation of different connection profiles

It is now possible to create different connection profiles, useful when the Valab client is used with more than one Valab Server for example. The different profiles created in this way are proposed when the Valab client is started up.

Validation of the connections

The window used to set up the VALAB_Node and Valab Server remote access listening ports now has an icon allowing to validate the settings entered for the connection.

The icon has three states:

?   the current configuration has not yet been validated

✔   the current configuration has been validated (you will have to **Apply** the changes and restart Valab for it to be taken into account)

✖   the current configuration has not been validated

Correspondence tables

Length of the coded text sent by the LIS

The LIS sends contextual information (Therapeutic and Clinical Information, Complementary Information, Prescribers, qualitative tests) to Valab in the form of coded text ("text codes").

These codes are recorded in their corresponding correspondence tables, each one matched to an equivalent code recognised by Valab.

With Version 14 of Valab, the length of the coded text supported by the correspondence tables for this contextual information increases from 40 to 256 characters.

This modification was made in particular with regard to two possible cases:

- **sending a conclusion in the report (serology, platelets, …)**
  The coded phrases (standard phrases) sent by the LIS to describe a conclusion for the report may be quite long. The change from 40 to 256 characters now allows to distinguish these phrases from one another.

- **sending complete phrases in general**
  More generally it is possible that the LIS may send Valab complete coded phrases in order to convey certain information. In this case again, the 40 characters of previous versions of Valab were not enough to receive these phrases in full.

Archiving autoverified reports

Extension of the maximum period for the archiving of autoverified reports

The maximum conservation period to keep autoverified reports has been increased from 18 months to 24 months.

User account administration

Greater flexibility in user account administration

The possibility to create more than one account administrator

This evolution enables individually traced management of the user account administration by more than one person. Previously there was only one user administration account which could only be assigned to one person.

With Version 14 of Valab, the initial user accounts administrator can assign account administration rights to other users. These users then become administrators in their own right, while keeping their right to consult and set up Valab.

Search and filter facilities

Search and filter facilities in windows with lists

Some Valab windows displaying lists benefit from new mechanisms allowing to refine the search and display of the items listed:

| 1 | new text search field |

| 2 | refined search by date/time range |

| 3 | new *Advanced search* panel |
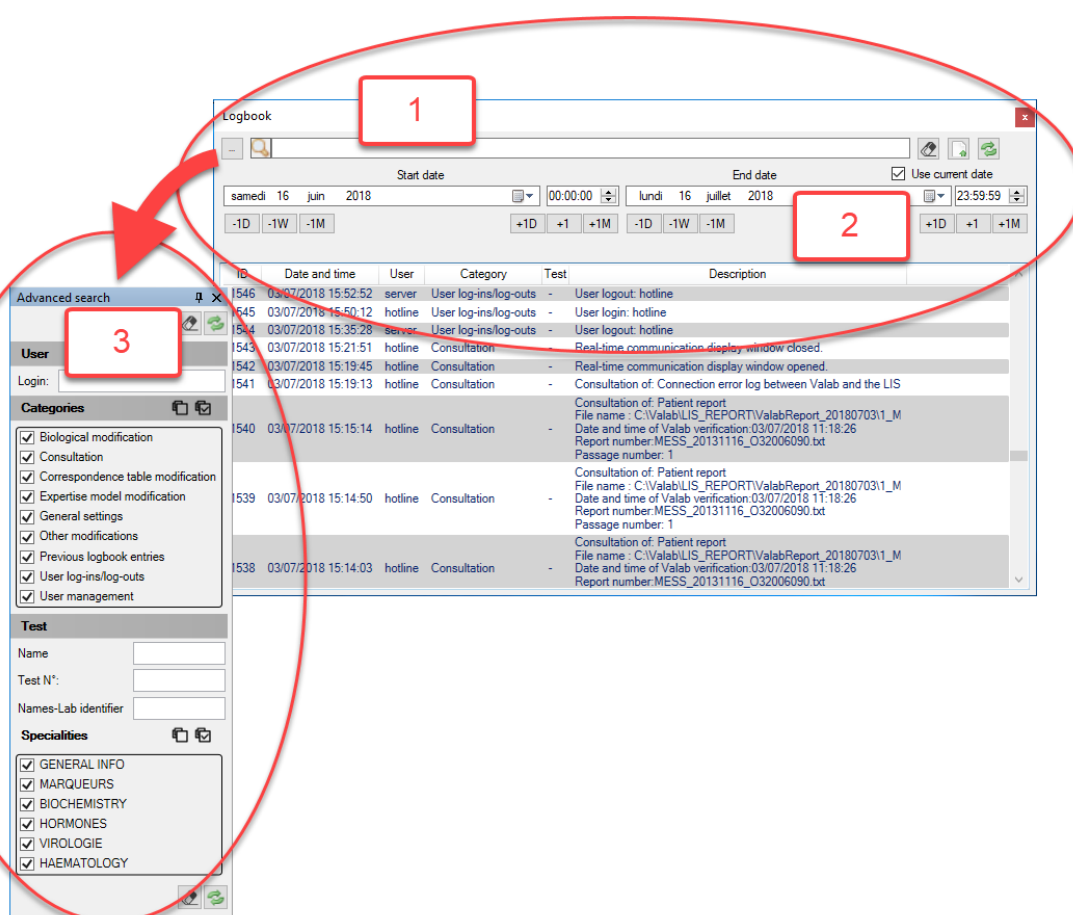
These new mechanisms are proposed in the following windows:

window	text search	date/time range	Advanced search
Test parameter settings	✓	x	✓
Logbook	✓	✓	✓
Connection errors log	✓	✓	✓
Open PTD file	✓	✓	x
Statistics	✓	✓	✓
Alarms (for statistics)	✓	x	x

Improvements V14

1	**New text search field**

A new text search field allows you to filter the list of items displayed in the window according to a partial or full text entry.

2	**Refine the search by date/time range**

Windows containing items with dates and times benefit from corresponding filtering according to a start and end date and time range, defined with the help of intuitive controls. It is possible to activate automatic update of the end date to keep it aligned with the current date.

3	**New *Advanced search* panel**

A new contextual *Advanced search* panel allows you to filter the data of the windows containing tests according to one or more specialities.

For the *Logbook* window, additional filter criteria (user, type of action, test) are proposed in this panel.

The *Advanced search* panel is easy to use and very flexible:

- it can be displayed all the time
- it can be collapsed into a sidebar, ready to be expanded when the mouse pointer moves over it
- it can even be detached as a "floating" window

Printout and export

New data export formats

In the windows displaying lists, a dedicated button allows to print out and export the data displayed in different formats:
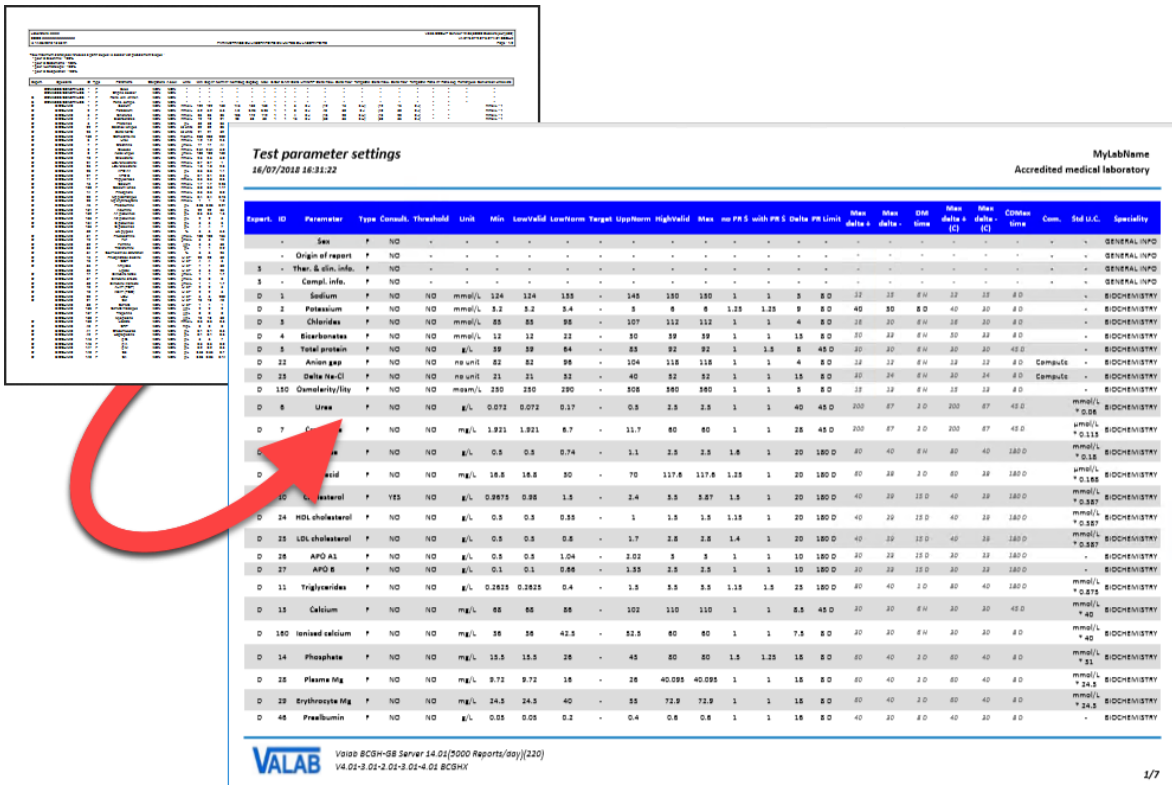
window	format
Test parameter settings	PDF, CSV, XLS
Logbook	PDF, XLS
Connection errors log	PDF
Manage correspondence table errors	PDF, CSV
Statistics	PDF, XLS
Alarms (for statistics)	PDF

The new possibility to export directly to PDF format facilitates the sharing, exploitation and archiving of data.

The possibility to export data to the CSV and XLS formats greatly facilitates its exploitation, this is particularly useful to exploit statistical data for example.

Better presentation of printouts

The presentation of printouts has been improved in Version 14 of Valab:

Optimised test management

The "Remove" button

As for linked, redirected and blind tests, it is now possible to remove Auto-Expert tests directly using the **Remove** button. The only tests which cannot be removed are the original tests provided with the standard Valab modules.

New "Specialities" button

A new **Specialities** button helps to manage the specialities by bringing together in a new window the functions to create, rename and delete specialities.

This only applies to specialities for Auto-Expert tests, linked tests and blind tests.

New overview of the distribution of the different types of tests

A **Details** button displays a new more complete view of the distribution of the different types of tests used and indicates the remaining possibilities for test creation (Auto-Expert, duplicate, linked, redirected and blind tests) according to the licence level.

Overview of the parameter settings for an individual test

The three access levels (general, critical, advanced) for the parameter settings for an individual test are now grouped together in a single window to give an overview of all of the settings for the test. The different levels of access rights are still applicable.

Complete redesign of the *Logbook* window

Why these modifications?

In previous versions of Valab, the data of the Logbook window was displayed unformatted, which meant that it could be consulted but it was difficult to exploit.

With Version 14, the data is presented in the form of a table which brings many advantages:

- it is easier to read
- columns can be sorted and resized
- text search by full or partial entry of the search string
- filtering by date-time ranges
- multi-criteria filtering using the *Advanced search* panel

Numerous improvements

New events logged

In Version 14 of Valab new events are traced in the *Logbook:*

- login/logout of users

Detailed trace of the different consultations

The *Logbook* provides a detailed trace of the following consultations:

- consultation of a report through its PTD file
- consultation of a report's history through its PTD file

- consultation of the trace of the connection errors between Valab and the LIS (**Ms-Cx** function)
- consultation of the real-time communication log (**RCP** function)

Detailed trace of actions related to the Auto-Expert expertise models

The *Logbook* traces in detail all actions related to Auto-Expert tests:

- importing an Auto-Expert test including for example:
  - its basic biological settings
  - its autoverification settings
- re-importing an Auto-Expert test including for example:
  - any modified biological settings (previous value and new value)
  - any modified autoverification settings (previous value and new value)
- creating an Auto-Expert test including for example:
  - the chosen basic biological settings
  - the chosen autoverification settings
- the modification of Auto-Expert tests (one Logbook entry per modified test) as a result of the removal of a non-Names-Lab Auto-Expert test with inter-parametric rules that affect other Auto-Expert tests

Multilingual display

Logbook entries are displayed in the language of the Valab interface, their language changes if the language of the interface is modified.

Clearer display

The display of the Logbook entries is generally clearer.

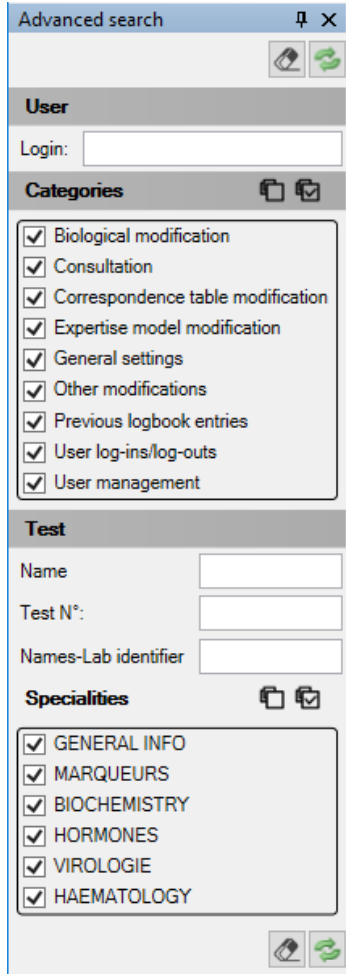For changes to Valab settings, the convention of displaying the new value followed by the previous value between square brackets has been widely extended and standardised.

Compatibility with previous versions of Valab

The Logbook benefits from backward compatibility with regard to its previous format - the previous logs have been kept.

It should be noted however that the multilingual display is not applied in this case.

Powerful multi-criteria filtering using a dedicated *Advanced search* panel

The *Advanced search* panel of the *Logbook* window takes advantage of the new organisation in table form to propose highly sophisticated filtering based on all of the key fields in the table. It is therefore possible to filter the Logbook entries by:

- *User*:
  - identity (login name)
- *Categories*:
  - user login/logout
  - consultation of the different settings
  - user administration actions
  - biological settings
  - expertise model settings (Auto-Expert)
  - general settings
- *Test*:
  - test name
  - test number
  - Names-Lab identifier of the test
- *Specialities* (standard filter proposed in the *Advanced search* panel for all of the windows displaying lists of tests)

All of these criteria can be combined at will, making data easy to explore and exploit.
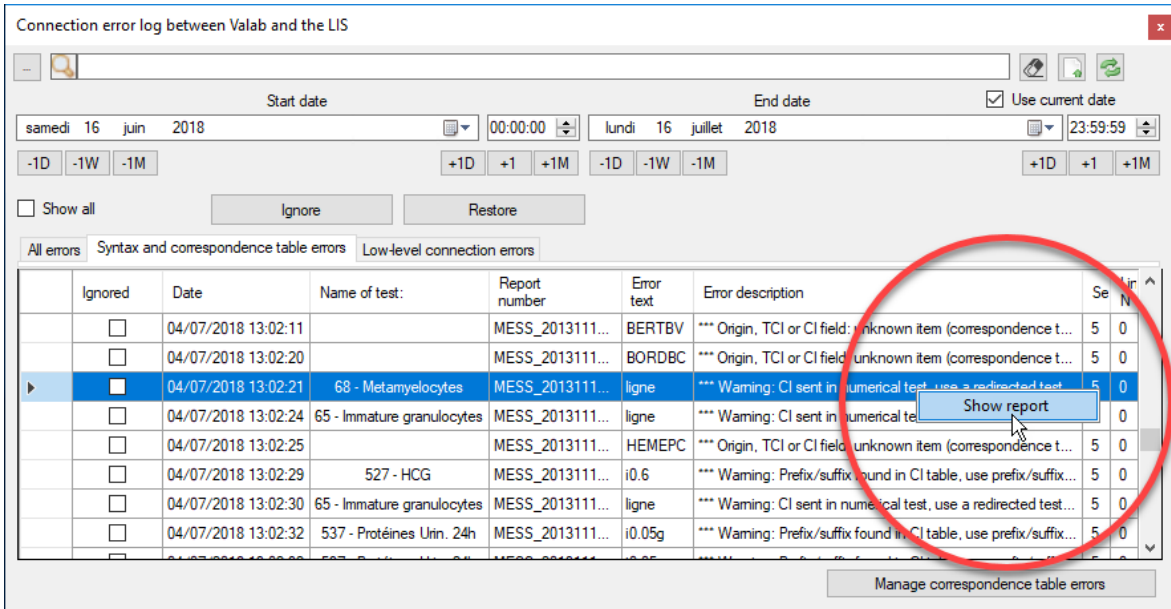
The *Connection errors* log

More intuitive error management

The error display and hide mechanism has been improved, it is now managed by **Ignore** and **Restore** buttons. The display of the error list has also been improved.

Easy opening of the patient's report concerned by the error

In version 12 of Valab it was necessary to go through the **File** menu or the *Simulation* window to consult the patient's report concerned by an error.

With Version 14 of Valab, a simple right click on the error in the *Connection errors log* window allows to open directly the associated patient report (PTD file) for consultation in a Simulation session.

User interface

Window enhancements

Various improvements have been made to the Valab windows:

- extended possibilities for sorting and text filtering
- filtering by date-time range if applicable
- access to an *Advanced search* panel for windows with lists
- optimised width and reorganisation of the columns in windows with lists
- general reorganisation and optimisation of the buttons and controls in the windows
- hints provide details about column headers when the mouse pointer is moved over them

Management of correspondence table errors

The layout of the window has been reorganised and optimised, additional fields facilitate the creation of new entries in the tables.

Setup of the tests

The *Test parameter settings* window has been reorganised and optimised, leaving more space to display the data. The buttons, fewer in number due to optimisation, are grouped together at the top of the window, and the columns can be sorted with the possibility of reverting at any time to the original sort order.

This window provides access to the *Advanced search* panel for filtering by one or more specialities, it also has the new text search field.

Consultation of autoverified reports

Window used to open PTD files (autoverified reports)

The window used to open PTD files has been improved. It now benefits from the new text search field and new controls to define date ranges allowing to refine searches for reports to be examined in a Simulation session.

Connection errors log

The layout of the window has been reorganised and optimised. It benefits from the new improved text search mechanism and filtering by date-time ranges.

Error display management has also been improved - see the section focusing on this window (The Connection errors log) for details.

Logbook

The design of the *Logbook* window has been greatly improved, the data is easier to read and better organised with an improved structure - see the section focusing on this window (The Logbook window) for details.

The *Logbook* window benefits from the new improved text search mechanism and filtering by date-time ranges, and it is now dockable.

Statistics

The Statistics window

The layout of the window has been reorganised leaving more space to display the data.

Still accessible from the **View** menu, the *Statistics* window now has a tab and is dockable like the other main windows of Valab.

The *Alarms* setup window for the statistics

Like the *Statistics* window, the *Alarms* setup window is now accessible directly from the **View** menu and it has its own tab and is now dockable.

Its layout has been reorganised and optimised, leaving more space to display the data. The columns can be sorted with the possibility of reverting at any time to the original sort order.

The window benefits from the new textual search bar which allows full or partial term searches in the specialities and tests columns.

Speciality names are now listed next to the tests. Filtering by one or more specialities is possible using the new *Advanced search* panel.

Improved user documentation

The design of the user documentation (User Manual, Developer Manual, . . .) has been improved:

- reorganisation and clarification of certain sections
- new font and page layout
- new Glossary section