Valab® 16.01

Release Notes

The VALAB company is certified ISO 9001 by:

- Contents -

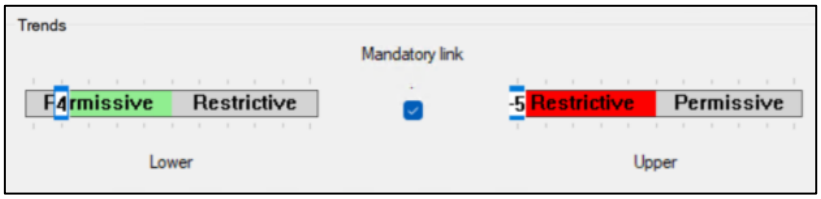
1 Object

This document provides a list of the modifications introduced in Version 16.01 of Valab® following Version 15.03.

2 Autoverification

2.1 Evolution of the behavior of the mandatory link

When a test has an anteriority, the mandatory link now extends the locking of the current result to the entire biological reference interval limits.



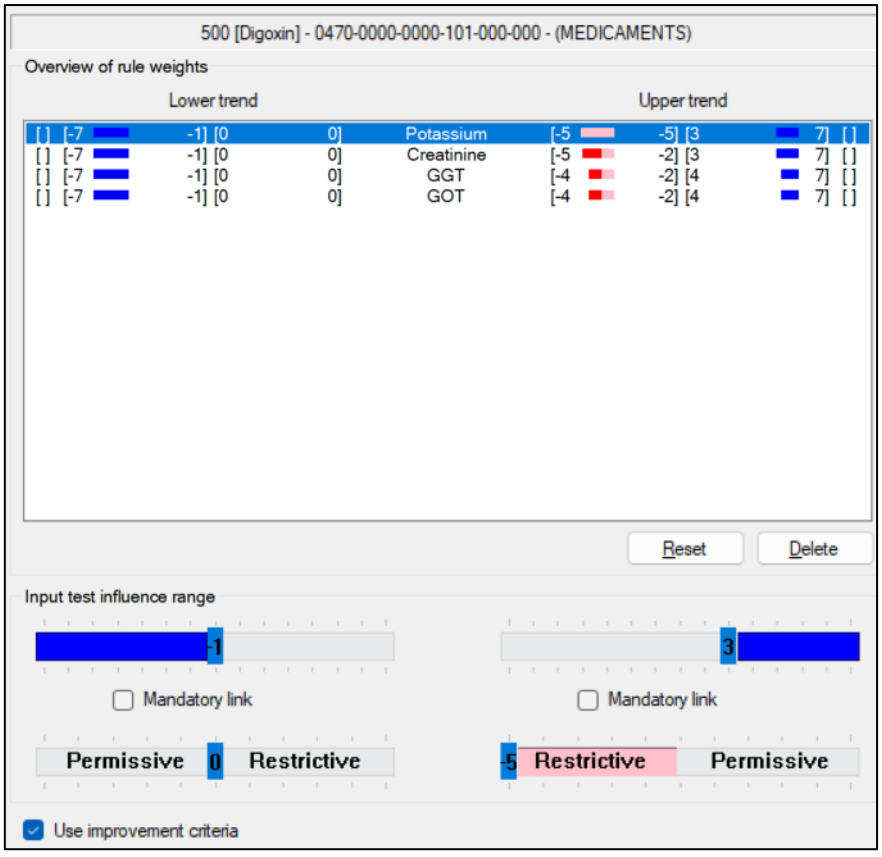
Specification: VLB-4148

2.2 Evolution of the behavior on the -5 influence

For the contextual rules and the inter-parametric rules, the behavior of the autoverification for the -5 rules on the anteriority level has been reinforced.

The negative rules with a weight of -5 will systematically apply from now on when the current result of the test is within the associated trend of the -5 rule, independent of the anteriority. No other condition applies.

This action only applies to rules with fixed weights “-5“ and does not concern proportional inter-parametric rules.



For example, a negative rule with weight “-5” on the upper trend will apply systematically if the current value of the test is in the upper trend (above the median), independent of the anteriority.

Specification: VLB-4423

2.3 New tests available

The tests that have been recently modelled since the previous major version of Valab® are now directly available in the application, via the **"IMPORT"** folder.

These tests cover several specialties, including:

- **Trace elements**: Blood Copper (Cupremia), Urinary Copper (Cupruria), Zinc, Selenium
- **Biochemistry**: Ceruleoplasmin, S100B Protein, Osteocalcin, CrossLaps CTX
- **Blood gases**: PO_2/FiO_2 ratio, FiO2, Gas temperature
- **Serology / Virology (Molecular Biology)**: Chlamydia PCR, Gonorrhoea PCR

All of these tests can be downloaded from the website.

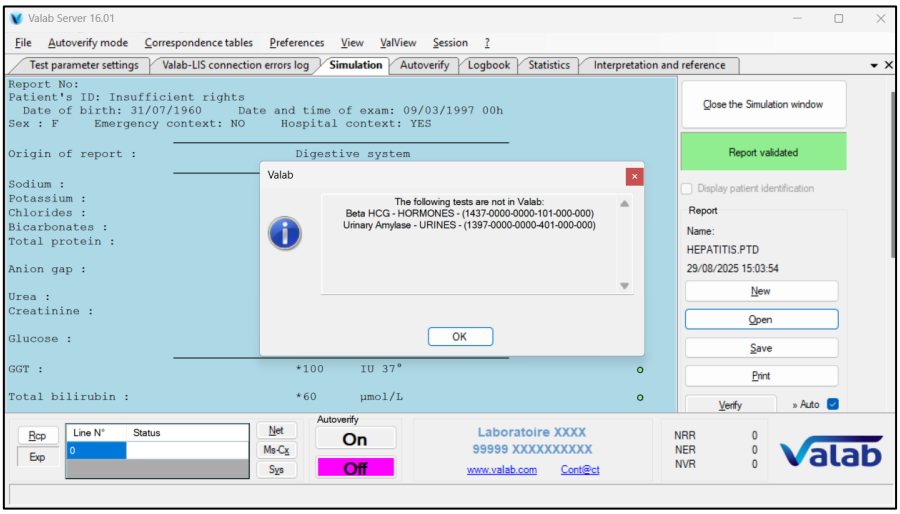
The Valab® tests catalogue is regularly updated and can be consulted at any time on our website or via automatic notifications through the tests subscription system, available from your customer area on **www.valab.com**.

3 Simulation

3.1 Displaying a report after deleting tests

A new test identification system has been set up to display tests of a report in simulation mode, after adding or removing tests. It is now possible to display an entire given medical report, even after having added or removed tests in Valab®.

A message will indicate the information about the tests which existed in the medical report but have meanwhile been deleted in Valab®. This will not prevent existing tests from being displayed.

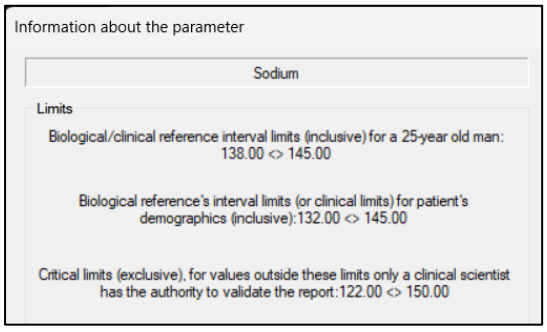


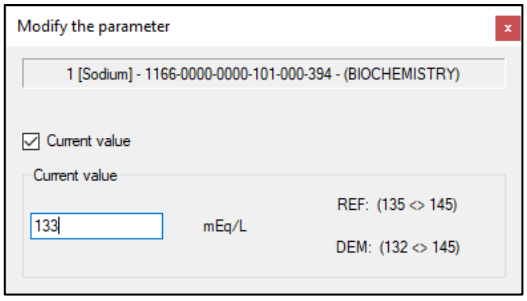
However, this new action is not retroactive and will only work for a report saved in Version 16 (or higher).

Specification: VLB-3748

3.2 Display of reference interval limits depending on demography

In the simulation mode, the biological reference interval limits corresponding to the demographic of the patient are now shown in the details and test edition windows. The display of the reference interval limits of a 25-year old man is preserved.



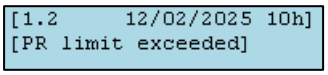


Note: this information is only available after verifying a report.

Specification: VLB-2367

3.3 Display of exceeded anteriority

In the simulation window, the date of the previous result is now displayed, even if it is not considered as it precedes the defined timeframe. In the latter case, the value will be displayed between brackets with the tag [PR limit exceeded].

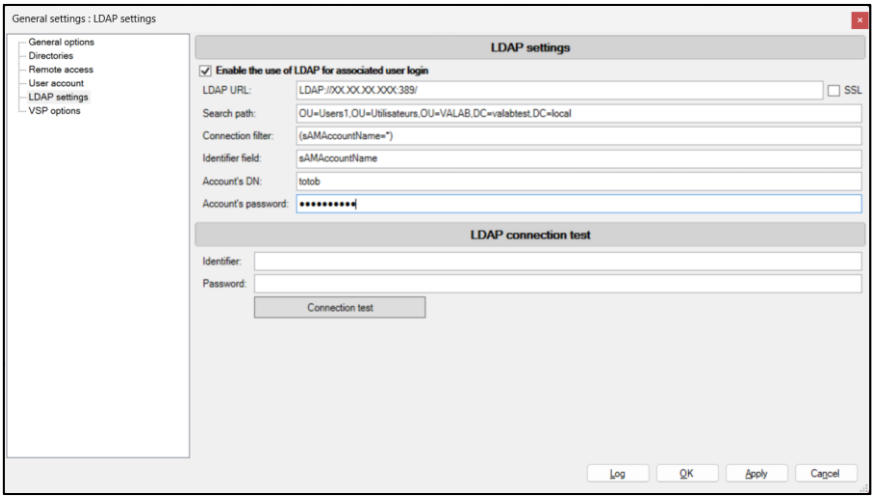


Specification: VLB-3747

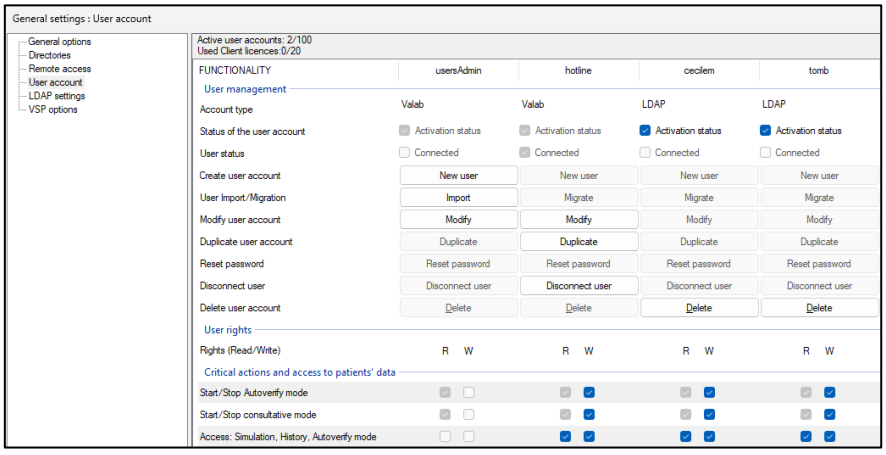
4 Security, traceability and GDPR

4.1 LDAP authentication support

From the current version, it is possible to connect the application Valab® to an LDAP directory (*Microsoft Active Directory, OpenLDAP…*), allowing users to connect through a unified authentication system. This option also allows for greater customization of the password strategy.



Once set up, it is possible to import users from the directory via the user management window. It is also possible to migrate a local user to an LDAP user. The users rights are preserved.



Specifications: VLB-3745, VLB-3892, VLB-3894, VLB-3895, VLB-3896, VLB-3897, VLB-3924, VLB-3985

4.2 Blocking multiple connections attempts

In order to enhance the application's security, a brute-force protection system has been implemented during the connection to the Valab® client.

A waiting time is triggered between two consecutive connection attempts. Multiple connection attempts are permitted (three by default, the number can be customized). After each failed attempt, the waiting time is doubled.

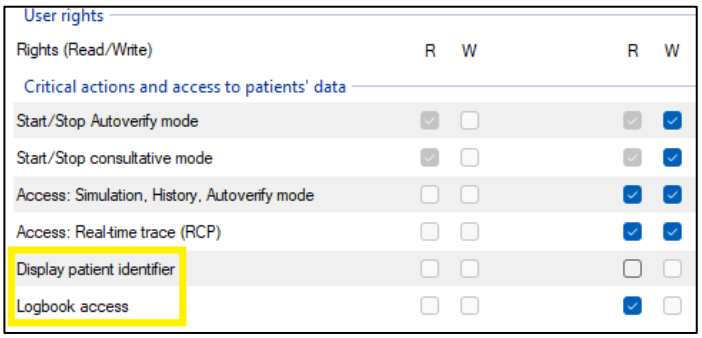
Specification: VLB-2265

4.3 Evolution of displaying the patient identifier

A new user right has been added, allowing to manage the visibility of the patient identifier in the simulation and the autoverify window. The right is called “Display patient identifier” (category “Critical actions and access to patients' data”) and replaces the global option in the “Modifying autoverification options” window. Neither “usersAdmin” nor “hotline” accounts have this right by default.

In addition, a checkbox located in the simulation window will allow masking the patient identifier. This action is only available if the user has the right: “Display patient identifier”.

Specifications: VLB-2102, VLB-3986



4.4 Right associated to the logbook

A new user right for the access to the logbook has been introduced.

Specification: VLB-2221

4.5 Tracing users connection failures

All users connection failures are traced in the application logbook. Whether the latter arise from the situations “unknown user” or “wrong password” is not specified.

Specification: VLB-3743

4.6 Application signature

Valab® application and its installers are now digitally signed using a code signature certificate. This assures users that the application is provided by the VALAB company and that it has not been altered since it was signed.

Specification: VLB-4647

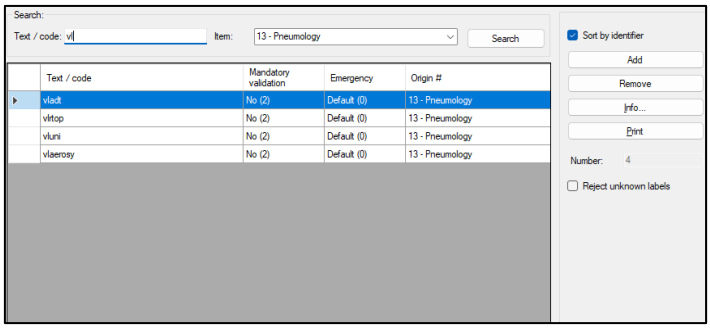
5 Correspondence tables

5.1 Adding a new filtering system

A filtering system has been set up in the “Correspondence tables” window.

It is now possible to filter entries by text, using an input box, and/or by item, using a drop-down menu, and by then pressing the button “Search”.

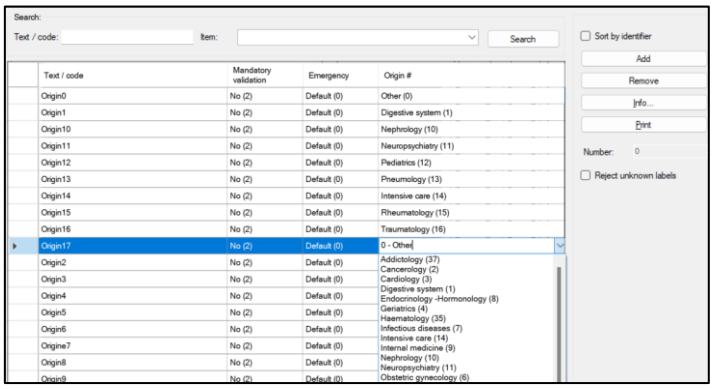
The filter is reset every time a different table is selected.



Specifications: VLB-2522, VLB-3680

5.2 Adding alphabetical filtering of items

It is now possible to filter items by alphabetical order (instead of identifier), by unticking the box “Sort by identifier”.



Specification: VLB-2523

5.3 Updating of prescriber items

The items of the table “Prescriber” have been updated, by replacing the term “Metabolic diseases” by “Endocrinology - Hormonology” (item 8) and by adding a new item named “Addictology” (item 37).

Specification: VLB-4032

5.4 Adding new TCI items

The “Therapeutic and clinical information (TCI)” item list has been extended with the following items[1]:

190 - Methotrexate
191 - Hydroxychloroquine
192 - Pre-exposure prophylaxis against HIV
193 - Lithium salt
194 - TNF inhibitor
195 - Immunotherapy
196 - Isotretinoin
197 - Inflammatory bowel diseases
198 - Connective tissue disease
199 - Systemic lupus erythematosus
200 - Coeliac disease
201 - Rheumatoid arthritis
202 - Ankylosing spondylitis
203 - Coronary artery disease
204 - Haemophilia (A and B)
205 - Polycythaemia vera
206 - Pernicious anaemia
207 - Haemochromatosis
208 - Hepatic steatosis
209 - Sarcoidosis
210 - Arteriopathy
211 - Giant cell arteritis (Horton)
212 - von Willebrand disease
213 - Gallstone
214 - Gout
215 - Erysipelas
216 - Lyme disease
217 - Prostatitis
218 - Urinary tract infection
219 - Paget's disease of bone
220 - Age-related neurodegenerative disease
221 - Hypoparathyroidism
222 - Acromegaly
223 - Structural haemoglobinopathies (sickle cell disease)
224 - Myasthenia gravis
225 - Antiphospholipid syndrome
226 - Multiple sclerosis
227 - Cardiomyopathy
228 - Amyloidosis
229 - Gilbert's syndrome
230 - Cushing's syndrome
231 - Bone metastasis
232 - Monoclonal gammopathy of undetermined significance
233 - Parathyroidectomy
234 - Bariatric surgery
235 - Blood transfusion
236 - Obesity
237 - Amenorrhea
238 - Allergy
239 - Intracranial hypertension
240 - Sterility
241 - Infertility
242 - Cycle disorders (oligo-spanio-amenorrhoea)
243 - Decreased libido
244 - Erectile dysfunction
245 - Polycystic ovary syndrome
246 - Breastfeeding
247 - Hyperprolactinaemia
248 - Galactorrhoea

Specification: VLB-3694

5.5 Adding new CI items

The “Complementary information (CI)” item list has been extended with the following items[1]:

25 - Urinary catheterization
26 - Second urine stream
27 - Vet / Sterilised
28 - Vet / Dog
29 - Vet / Cat
30 - Vet / Equidae
31 - Vet / Ferret
32 - Vet / Rabbit
33 - Vet / Mouse
34 - Vet / Rat
35 - Vet / Guinea pig
36 - Vet / Hamster
37 - Vet / Birds
38 - Vet / Tortoise and Turtle
39 - Vet / Iguana
40 - Vet / Python
41 - Vet / Grey parrot
42 - Vet / Bovines
43 - Vet / Pigs
44 - Vet / Sheep
45 - Vet / Goat
46 - Vet / Poultry
47 - Vet / Male
48 - Vet / Female
49 - Vet / Castrated
50 - Vet / Cushing treatment
51 - Vet / Animal on critical antibiotics
52 - Vet / Stressed animal
53 - Vet / Medetomidine
54 - Vet / Portosystemic shunt
55 - Vet / Exercise excess
56 - Vet / Insulinoma
57 - Vet / Glucagonoma
58 - Vet / Polyuria polydipsia
59 - Vet / Oestrus
60 - Vet / Pro-oestrus
61 - Vet / Metestrus
62 - Vet / Anoestrus

Specification: VLB-3695

[1] *New items will be incorporated into the test autoverification progressively, in line with rule updates.*

5.6 Adding new Auto-Expert items

The Auto-Expert item list has been extended with the following items[1].

5.6.1 Conclusions of electrophoresis proteins

69 - SPE / Haemolyzed: analysis not feasible
70 - SPE / Lipemic: analysis not feasible
71 - SPE / Profile with no significant anomalies
72 - SPE / Prescribed immunotyping (profile without anomalies)
73 - SPE / Presence of IgA Kappa monoclonal immunoglobulin
74 - SPE / Presence of an IgA Lambda monoclonal immunoglobulin
75 - SPE / Presence of an IgG Kappa monoclonal immunoglobulin
76 - SPE / Presence of an IgG Lambda monoclonal immunoglobulin
77 - SPE / Presence of an IgM Lambda monoclonal immunoglobulin
78 - SPE / Presence of an IgM Kappa monoclonal immunoglobulin
79 - SPE / Significant hypoalbuminemia
80 - SPE / Moderate hypoalbuminemia associated with an increase in A2-globulins
81 - SPE / Probable nephrotic syndrome (hypoalbuminemia, increased A2-globulins and decreased G-globulins)
82 - SPE / Profile compatible with an inflammatory syndrome associated with hypoalbuminemia
83 - SPE / Probable haemoconcentration
84 - SPE / Bisalbuminemia: congenital or secondary
85 - SPE / Increase in B1-globulins compatible with sideropenia
86 - SPE / Peak in B2-globulin fraction
87 - SPE / Significant inflammatory syndrome or biliary cholestasis
88 - SPE / B2-globulins higher than the B1-globulins that justified immunotyping
89 - SPE / Beta-Gamma block suggestive of hepatocellular damage
90 - SPE / Presence of a monoclonal peak
91 - SPE / Collapse of gamma globulins (Immunotyping and Bence-Jones proteinuria recommended)
92 - SPE / Moderate decrease in G-globulins
93 - SPE / Peak G-globulin fraction
94 - SPE / Deformation of G-globulins: polyclonal increase, heterogeneity restriction, oligoclonal appearance or discrete monoclonal peak
95 - SPE / Profile compatible with an inflammatory syndrome with immune reaction and polyclonal activation of G-globulins
96 - SPE / Inflammatory profile
97 - SPE / Moderate inflammatory syndrome
98 - SPE / Significant inflammatory syndrome
99 - SPE / Probable alpha 1 antitrypsin deficiency
100 - SPE / Intravascular haemolysis possible (haptoglobin assay recommended)
101 - SPE / Global hypoproteinaemia
102 - SPE / No change from the previous layout
103 - SPE / Electrophoretic abnormality requiring immunofixation

5.6.2 Phenotypes groups

104 - Phenotype group A+
105 - Phenotype group A-
106 - Phenotype group B+
107 - Phenotype group B-
108 - Phenotype group AB+
109 - Phenotype group AB-
110 - Phenotype group O+
111 - Phenotype group O-

5.6.3 Antigen/phenotype rhesus

112 - Rhesus Antigen C
113 - Rhesus Antigen c
114 - Rhesus Antigen E
115 - Rhesus Antigen e
116 - Rhesus phenotype CCEE
117 - Rhesus phenotype CCEe
118 - Rhesus phenotype CCee
119 - Rhesus phenotype CcEE
120 - Rhesus phenotype CcEe
121 - Rhesus phenotype Ccee
122 - Rhesus phenotype ccEE
123 - Rhesus phenotype ccEe
124 - Rhesus phenotype ccee

5.6.4 Veterinarians

125 - Vet / Blood group dog A negative
126 - Vet / Blood group dog A1
127 - Vet / Blood group dog A2
128 - Vet / Blood group dog B, C, D, E, F, G
129 - Vet / Blood group cat A
130 - Vet / Blood group cat B
131 - Vet / Blood group cat AB

Specifications: VLB-2576, VLB-3108, VLB-3110, VLB-3116, VLB-4340

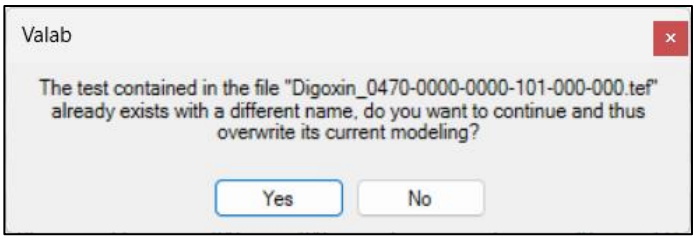
[1] *New items will be incorporated into the test autoverification progressively, in line with rule updates.*

6 Test parameter settings

6.1 Ability to import a renamed test

It is now possible to import an existing Auto-Expert test into the application with a same Names-Lab code and a different name.

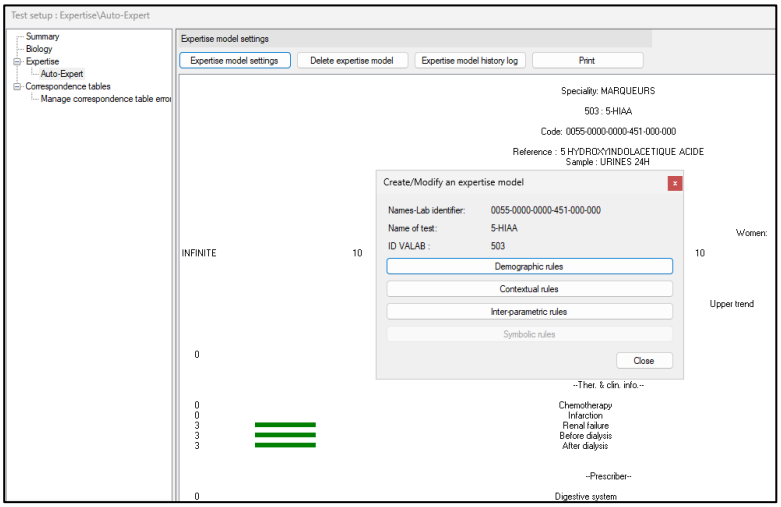
Specification: VLB-4169



6.2 Access to Auto-Expert test parameter settings

The access to Auto-Expert test parameter settings has been simplified by removing an intermediate dialog window. Buttons have been reorganized.

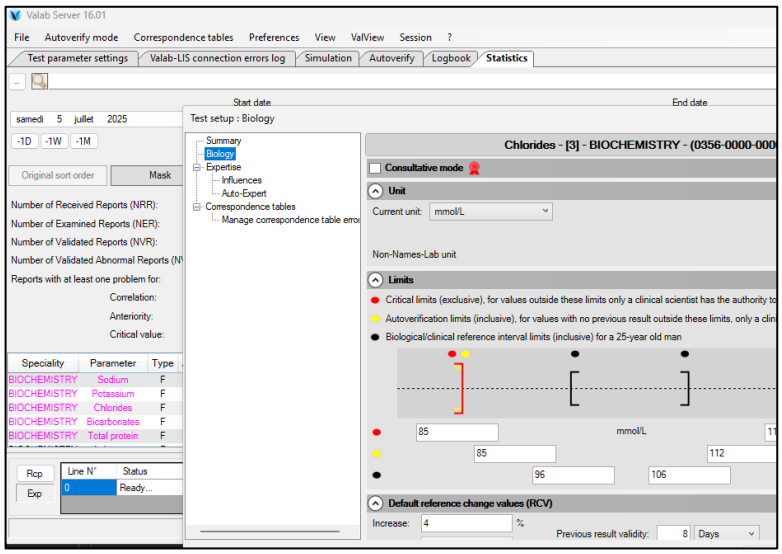
Specification: VLB-4523



6.3 Access to test parameter settings from statistics

The access to test parameter settings is now possible from the statistics window, through the table context menu (right click).

Specification: VLB-2632



7 Communication with the SIL

7.1 Removal of the old autoverification flags

From this version on, the autoverification flags “V12 extended” were renamed as “Standard” and are now the only preconfigured flags. It remains possible to customize flags, e.g. for the scenario that the SIL does not support the display of the standard flags.

When launching the application after the current update, flag behavior will be as follows: if the previous setup used old flags, the option will now be set to standard flags, thus changing the flags displayed in the SIL. This change will be logged in the system alerts as well as in the server logs file.

Specification: VLB-4547

7.2 Blocking numerical analysis received multiple times (if values differ)

The communication protocol now signals if multiple different numerical values are sent for the same test (or its redirected tests) within the same frame. A technical error flag (eT) will now show for these tests which will block the report. None of the received test values will be taken into account in the autoverification. An entry in the connection error log will be generated.

Specifications: VLB-2104, VLB-2508

7.3 Bridling of ‘O’ commands interpretation

For ‘O’ commands (prescribers or report origin), the interpretation system for frames coming from the SIL will no longer try to match those commands with the labels from Complementary information (CI), Therapeutic and clinical information (TCI) or symbolic tests.

Specification: VLB-2480

7.4 Removing N flag

The Neutral flag (N) has been removed from the flag settings. For this scenario, a Validated flag (V) is now being sent to the SIL.

Specification: VLB-3744

7.5 Activating default connections

During the first setup of the application, all connections with the SIL will now be activated.

Specification: VLB-4546

7.6 Interpretation of years on 4 characters only

Frames exchanged between Valab® and the SIL must use a 4-digit year date format. If the condition is not met, a syntax error is logged.

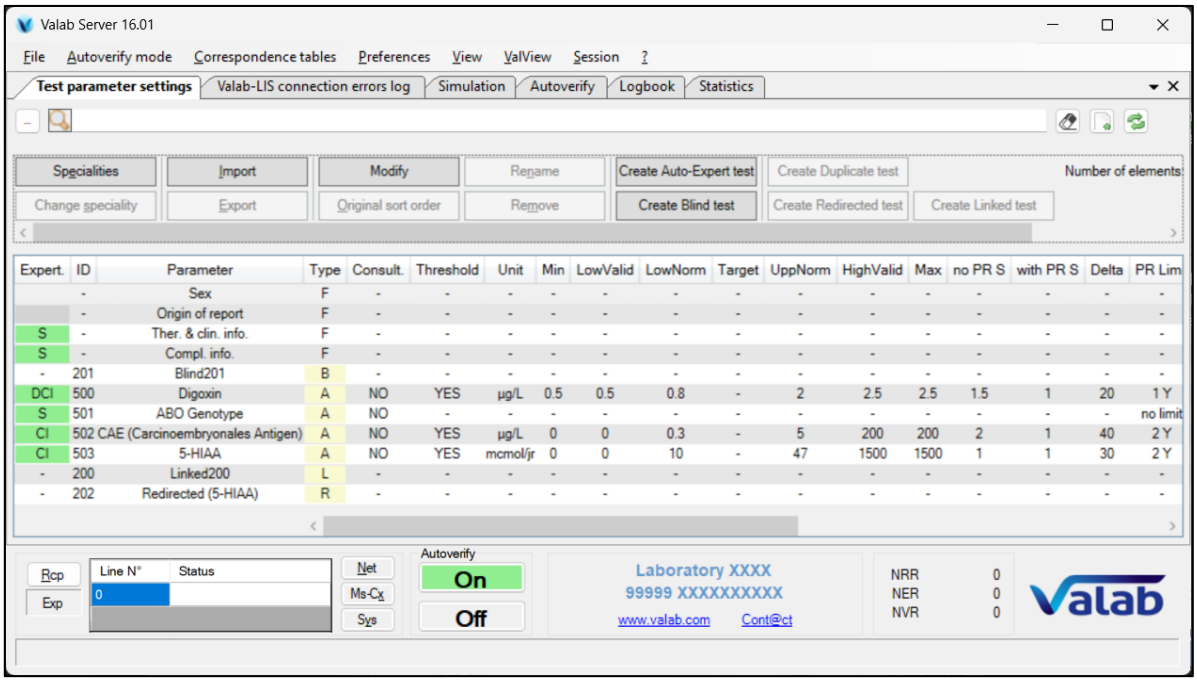
Specification: VLB-2595

8 License management

8.1 New option for license without module

The Valab® server can now run with a license that does not contain any active module.

In this case, the server will not have any module test loaded. Functionalities of Auto-Expert tests are preserved. They can be created, imported, customized and used. This is equally true for other test types (duplicate, redirected, linked or blind tests).



Specification: VLB-2626

8.2 Managing the items and specialties of original standard tests

Specialties and items of original standard tests are no longer determined by the active modules in the license. All (empty) specialties and items are now available in the application.

Similarly, importing an Auto-Expert analysis from an original specialty is no longer blocked if the specialty belongs to a module that is inactive in the license. However, it is still not possible to import an original standard test (type 'F') if its module is not active.

Specifications: VLB-3850, VLB-3851

8.3 Reactivation of the autoverify mode after switching to blocked mode

Autoverify will reactivate if it was active before the server entered blocked mode, upon returning to nominal mode from blocked mode, for clients on a VSP server license.

Specification: VLB-4458

9 Other developments

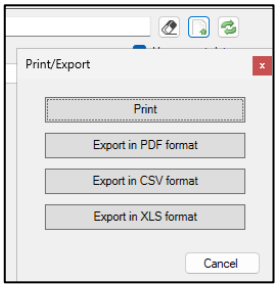
9.1 User interface

9.1.1 Development of the behavior of the “Expert.” column

For the “Expert.” column in the test parameter settings window, the C (contextual) and I (inter-parametric) acronyms will now take into account the activation (or not) of the influences of the original standard tests, in addition to the Auto-Expert rules.

Specification: VLB-3683

9.1.2 CSV statistics export



Statistics can now be exported to the CSV format (separator: “ ;”).

The first line of the file contains both start and end dates, the second line contains global statistics information and the following lines contain the statistics test by test.

Specification: VLB-3741

9.1.3 Removal of the TXT export

In simulation mode, to view the real-time trace and the history of the patient report frames, the consultation mechanism using an external editor has been replaced by a copy to clipboard system.

Specifications: VLB-1203, VLB-2565

9.1.4 Removal of the display of active modules in the license

The information in the title bar showing modules loaded by the license and the client language as well as the duplicate information in the dialog window “About Valab” has been removed.

Specification: VLB-4094

9.2 Environment files

9.2.1 Removal of the obsolete files linked to patient reports

The system removing files linked to patient reports present in the file LIS_REPORT has been modified. It is now based on the date contained in the directory name.

Specification: VLB-4113

9.3 Installers

9.3.1 Addition of the “Portuguese” language

The Portuguese language (pt-PT) has been added to the installers and is now integrated into the Valab® application, both in the user interface and on the server side.

Specification: VLB-5033

9.3.2 Integration of new documents

The installers now include the user quick help document (flags) in German, Spanish, Italian, and Portuguese, as well as the qualification file of Valab in Spanish and Portuguese.

Specification: VLB-4079

9.3.3 Always deploy VAT for the server installer

The tool “Valab Anonymization Tool” (VAT), used by the VALAB Support for some services, is now always deployed by the Valab® server installer.

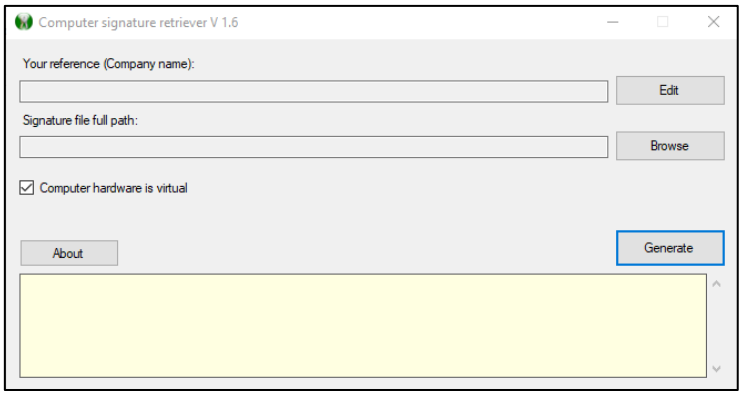
The “advanced tools” option of the installers now only concerns the tool "ValabSilReportExchangeAnalyser".

Specification: VLB-4038

9.4 Tools

9.4.1 Update of the options of the tool ComputerSignatureRetriever

Removal of an obsolete option and activation of the option by default “Hardware is virtual”, for the tool “ComputerSignatureRetriever”, used in the process of generating license files.



Specification: VLB-4062

10 Bug fixes

10.1 SIL connection

10.1.1 Switching to blocked mode when exceeding the limit of a VSP license

Integrating a fix for a situation where a switch to blocked mode could occur after exceeding the limit of report/day for a VSP license, for patient reports which have been sent from SIL to Valab earlier in the day.

Specification: VLB-4434

10.1.2 Inappropriate error trace for the connection

An inappropriate trace of type “Test with no value” was removed which occurred in the scenario when a symbolic test was received with unknown labels while the connection option “Ignore empty tests” was activated. The correspondence tables were configured to refuse unknown labels.

Specification: VLB-3981

10.2 User interface

10.2.1 Reading in simulation after original standard test import

Fix for a display problem of reports in simulation mode (verified by autoverification) after importing an original standard test (type “F”).

Specification: VLB-4112

10.2.2 Global data truncated in the statistics printing

Fix for a truncation issue for general data with more than five digits when printing or exporting the statistic in PDF format.

Specification: VLB-4083

10.2.3 Incorrect label in the edition trace of statistic alerts

Fix for non-matching values and labels in the logbook trace, which occurred when modifying statistics alerts.

Specification: VLB-4561

10.3 ValView

10.3.1 Date format

Corrected date formatting when communicating through the API to avoid errors that prevented data retrieval, depending on the date configuration in Windows©.

Specification: VLB-4324

10.3.2 Tooltip with absolute values for the indicator “Validation rate drift by test”

Fix for the information displayed in the tooltip of the indicator “Validation rate drift by test” to be able to display negative values as limits.

Specification: VLB-3952

10.3.3 Export indicator naming “Laboratory reference autoverification rate”

Fix for the default naming of the export file for the indicator “Laboratory reference autoverification rate”.

Specification: VLB-4657

10.4 VSP

10.4.1 Sending statistics to the VSP

Fix for a problem that rarely occurred when sending statistics information between ValabServer, ValabNode and the VSP.

Specification: VLB-4829

10.5 Automated system

10.5.1 Automated system latency when opening « Correspondence table errors »

Fix for a situation where the Automated system would be blocked (real-time autoverification) during the loading of the window “Correspondence table errors” when the correspondence tables are filled with a lot of entries.

Specification: VLB-4889