

Release notes - Version 9.5.0



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Version 9.5.0

Important modifications

Storage of station's operator and verifier (GLIMS-06588)

Introduction

GLIMS 9.5 provides new functionality for storing the operator and verifier information sent by an analyzer.

Warning

As of GLIMS 9.5, the operator / verifier received from an analyzer will no longer be used to set the result's availability / confirmation / validation user !

Result's availability user

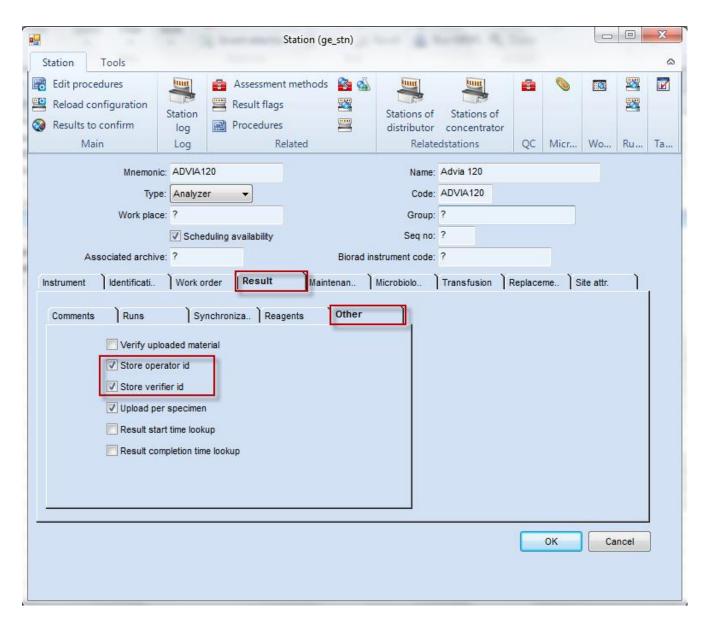
1. The batch user of the service that uploaded the result.

Result's confirmation / validation user (for auto-confirmation/validation)

- 1. The Responsible defined in the applicable Procedure.
- 2. If not defined, the batch user of the service that uploaded the result.

Station configuration

For each Station, the options **Store operator id** and **Store verifier id** allow to indicate whether the operator/verifier sent in a result message should be stored in GLIMS.



Station users

If the station configuration indicates that the operator/verifier sent by the analyzer should be stored, GLIMS will store these users as **Station users**. If necessary, GLIMS will automatically create these Station users.

Station users can be accessed from the main menu via Start -> System management -> Security -> Station users.



Login name

Name as received from the analyzer (e.g. operator / verifier id specified in result message from analyzer).

User

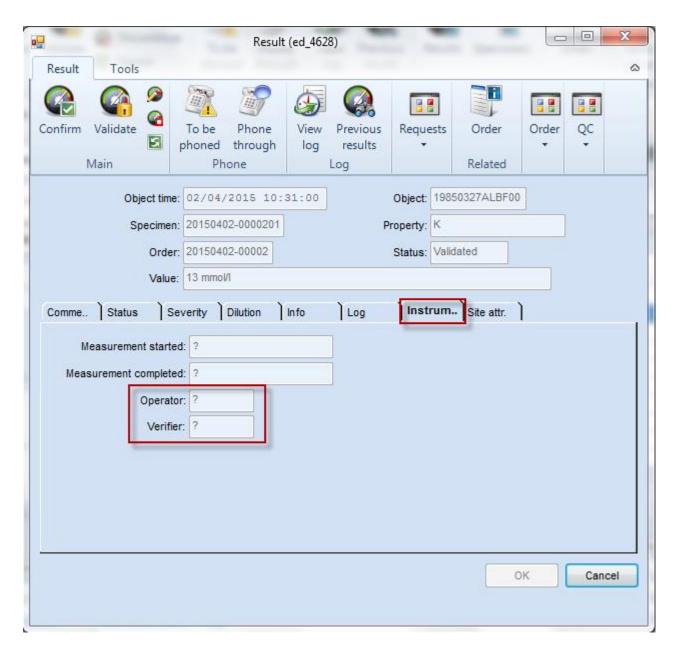
Allows to connect the station user to a GLIMS user.

Station

Station that sent verifier /operator info via a result message.

Result details

When a result is uploaded by an analyzer, and the operator / verifier is specified in the message, this info can be consulted in the result detail screen.



Operator, Verifier

Both fields refer to a Station user.

Caching of SpecificSite settings (GLIMS-06635)

For performance reasons, the general settings (Start -> System Management -> Customize -> GLIMS...) are now cached.

In order to cope with the problem of configuration changes, a special mechanism ensures that all running sessions are immediately informed about the configuration change(s).

Note

Running sessions can be interactive client sessions, but also batch sessions like services for electronic order entry, or AppServer agent sessions used by interactive client sessions.

Each time a running session needs data, it first checks if the configuration was changed. If so, it clears its memory and starts reloading the new data.

The check for configuration changes is not performed when it was done very recently, within a certain period of time. This period of time can be configured in the general settings (Start -> System Management -> Customize -> GLIMS, tab page More).

Caching update interval

- For GLIMS systems in routine, this is set by default to 1 hour (longer is better for performance).
- For GLIMS systems in configuration or testing phase, it is advisable to set this to a low value like e.g. 10s.

Oracle optimizer mode set to "ALL_ROWS" (MATE-03523)

The general option Oracle optimizer mode (accessible from the main menu via Start -> System management -> Customize -> Mate -> Performance) has been removed.

Instead, GLIMS now sets the oracle optimizer mode hard-coded to "ALL_ROWS". This setting assumes valid statistics are present for the cost based optimizer.

This is in line with the evolution within ORACLE: the rule-based optimizer is becoming obsolete.

Order entry

High number of requests in single order (GLIMS-05389)

An error could occur when requesting a high number of tests (> 600) in a single order (e.g for genetics).

This has been corrected.

Support 'favorite' request forms (GLIMS-06664)

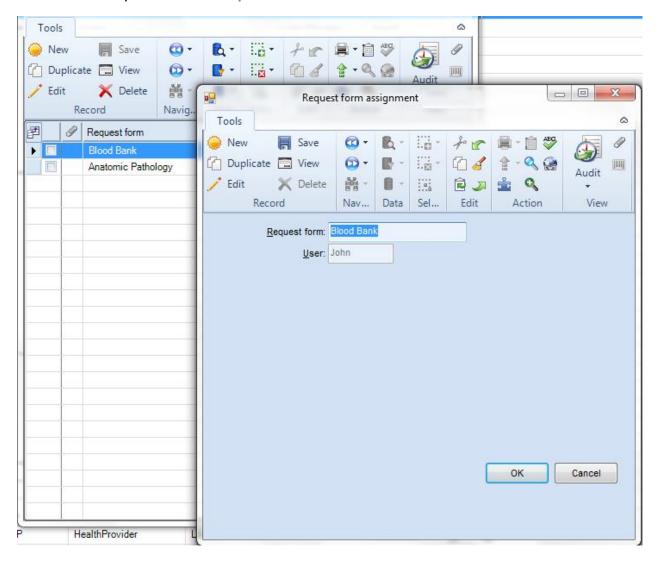
GLIMS offers a concept of favorites for a number of tables (**Printers**, **Stations** and **Work list templates**). This is now also supported for **Request forms**.

Definition of 'favorite' request forms

To define 'favorite' request forms:

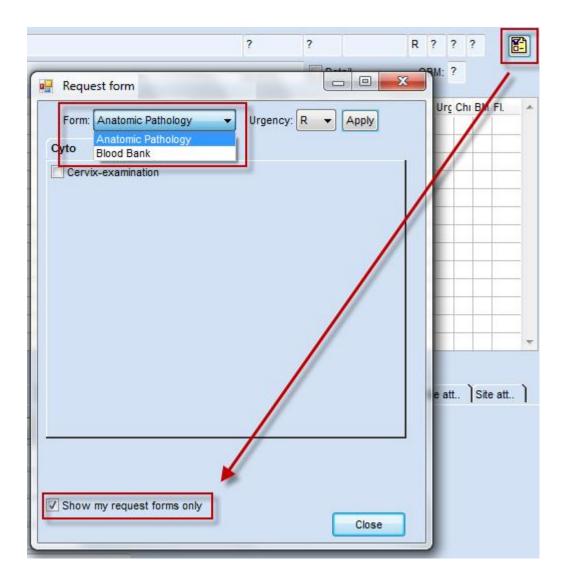
- 1. Open the Users browser and select a user.
- 2. Choose the contextual menu/ribbon item Favorites -> Request form assignments

3. Hit the Insert key and select a Request form to be added as favorite



Usage

Wherever you can select a request form (e.g. in the order entry screen), an option **Show my request forms only** will be available. If enabled, only the user's favorite request forms will be shown.



Apply blocking period to Available specimens only (GLIMS-06667)

When adding a request to an order, GLIMS will now only consider **Available** specimens when checking if the blocking period is respected.

Note

This implies that it is possible to request a request code multiple times for the same object within the defined blocking period, as long as the specimens on which the requests are scheduled are not available yet.

Results

Issue with result codes (GLIMS-06592)

Problem description:

- 1. In a result browser, select a result cell.
- 2. Press CTRL-F.
- 3. Select a **Result code** and press **<Return>**.
- 4. Press < Space > and type some words.
- 5. Press < Return >.
- 6. The words you typed in disappear.

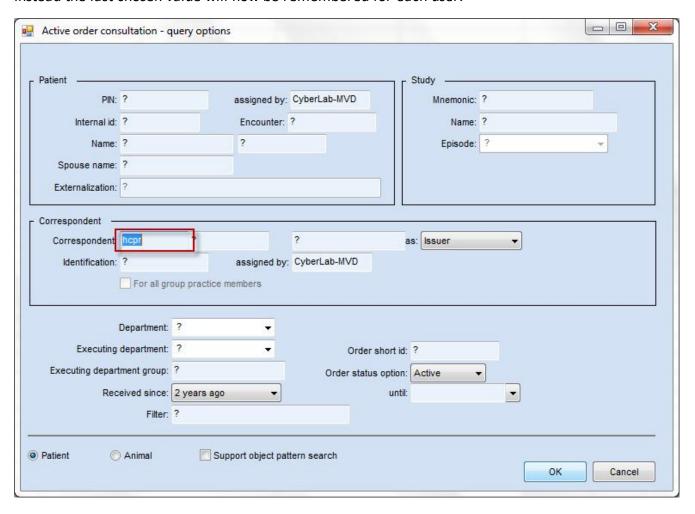
This has been corrected.

Consultation

Default 'Correspondent type' in order consultation (GLIMS-06659)

The default value for the **Correspondent type** in the Order consultation program is no longer based on the Order entry option Default issuer type.

Instead the last chosen value will now be remembered for each user.



Norms

Specific norms for phone list, reports, severities (GLIMS-06665)

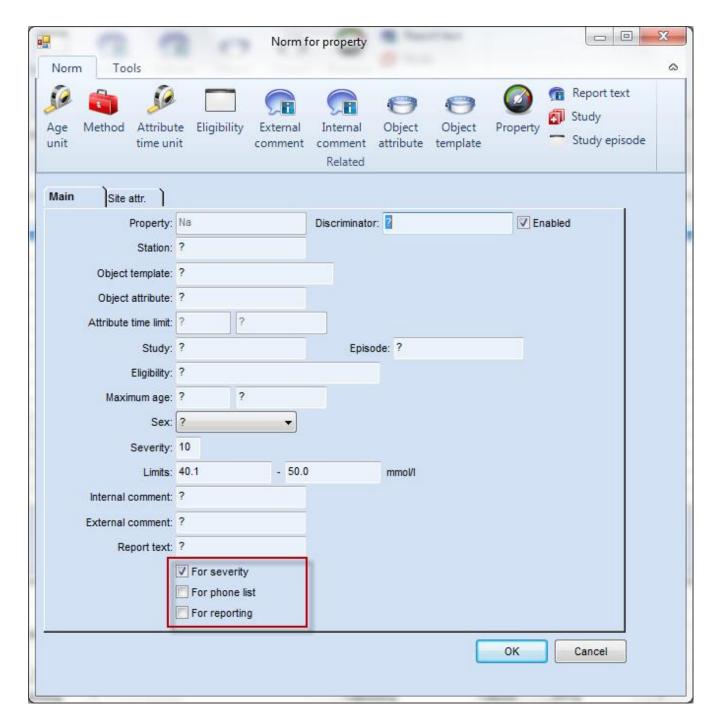
Case description

In previous versions, it was not easy to indicate that a specific norm should be used to:

- 1. display reference values on a report (only norms with severity "1" could be printed as reference values).
- 2. calculate the norm severity of a result (to enable/disable automatic confirmation and validation).
- 3. calculate the phone severity of a result (to mark a result as "To be phoned").

Solution

Three new options have been added to define the specific purpose of a norm.



For severity

If enabled, the Severity defined in the norm configuration will be used to set the result's norm severity and can hence influence the final severity of the result.

Note

The Auto-confirm severity and Auto-validate severity defined in the Assessment method are compared with the result's final severity to decide whether the result can be automatically confirmed / validated.

For phone list

If enabled, the Severity defined in the norm configuration will be used to set the result's

phone list severity (new field Result.PhoneListSeverity).

Note

The Phone severity defined in the Assessment method is compared with the maximum of the result's phone list severity, delta norm severity and manual severity to decide whether the result should be marked as **To be phoned**.

For reporting

If enabled, the norm's low and high limits can be printed as reference values on reports.

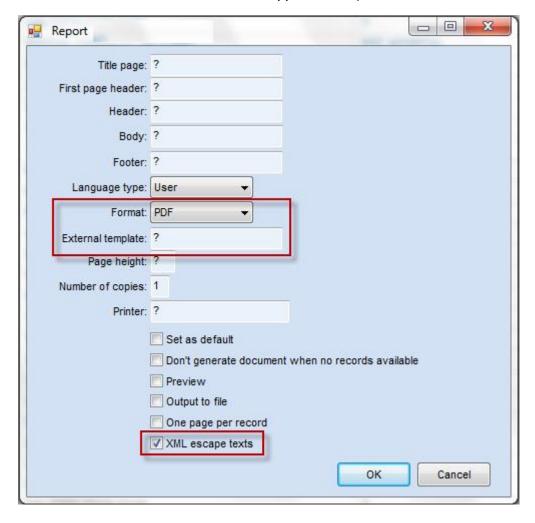
Note

When upgrading to GLIMS 9.5, this option will be enabled for all norms with Severity set to 1. This ensures backward-compatibility.

Report builder

Support Report builder in generic Report tool (MATE_RB-00026)

The contextual Tools ribbon has a **Report** item that allows generating a custom report for the focused browser. This tool was extended with support for **Report Builder**.



To this end, the following options were added:

- Format [Text/PDF/XML]
- External template [Format PDF only]
- XML escape texts [Format PDF/XML only]

Please check the manual for a full description.

Report builder: embedded images in XML messages (MATE_RB-00043)

Some Report builder XML data files may contain embedded images (Base64-encoded) rather than file paths. In such cases, it was hard to include these images in the report output.

With this modification we have provided a helper method to make this easier. The report layout designer will be able to include such embedded images with two simple steps:

- 1. set the image expression class to 'java.io.InputStream'
- set the image expression to something like be.mips.util.ImageUtilities.decodeEmbeddedImage (\$F{FieldContainingTheBase64EncodedImage})

Basic validation of Jasper templates for result reports (MATE_RB-00047)

For result reports generated with Report builder, the Report template option **Generator** is set to **Glims report builder** and a **Jasper template** file is specified. A **Report template** based function **Validate report template** is now available to check for potential problems in the **Jasper template**.

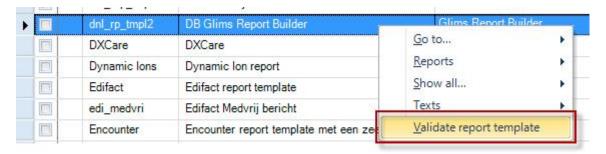
Warning

The Validate report template function performs some basic checks, but this does not guarantee a 100% flawless Jasper template.

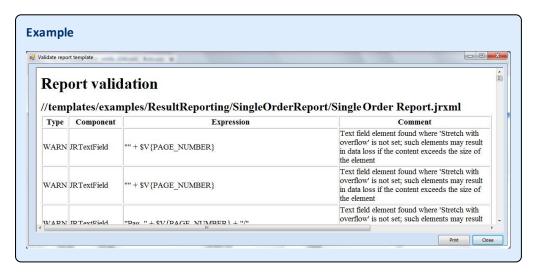
Always thoroughly test the Jasper templates before using them in a production environment !

Validate a report template

- 1. Select a Report template with Generator set to Glims report builder.
- 2. Choose the contextual menu/ribbon item Validate report template.



3. A summary will be shown with potential problems in the Jasper template.



In the summary shown above, the validation function warns about the fact that the option **Stretch with overflow** is not set for some of the text field elements in the Jasper template. As a consequence, texts could be truncated due to a lack of space.

Notes

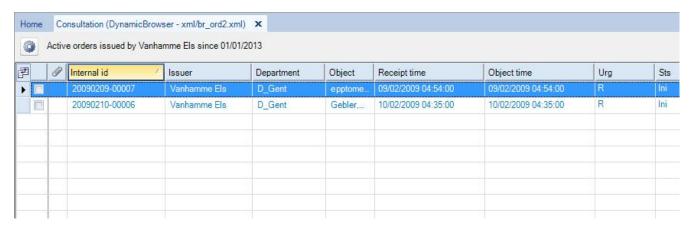
- 1. The validation summary will be empty when:
 - A Report builder service is defined but it is not running.
 - No Jasper template file is specified in the Report template configuration.
 - The Jasper template file specified in the Report template configuration cannot be found.
- 2. The same validation checks are performed during report generation. Warnings will be shown on screen or added to the log file.
- 3. The Validate report template function checks both main and sub reports.

User interface

Redesigned browsers (GLIMS-05880)

The following browsers have been re-designed:

- Order consultation
- · Order urgency monitor
- Extended result query
- · Incomplete results query
- Specimen query
- · Work lists browser
- QC Population browser



Note

So-called *Cycle columns* (columns with a cycle icon in the header, to switch between different data) are no longer supported. You can now use the Field chooser to define which data should be shown.

Only allow Logical site functions as filter (MATE-03703)

When defining a new browser Filter, the Type field will now automatically be set to Logical.

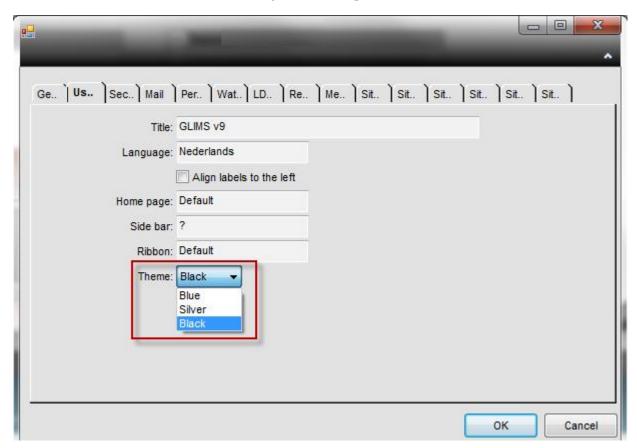
Fast-positioning on Enumerated fields (MATE-03708)

It is now possible to use fast-positioning (looking up a record in a browser by typing the first characters) on **Enumerated** fields such as a property's datatype.

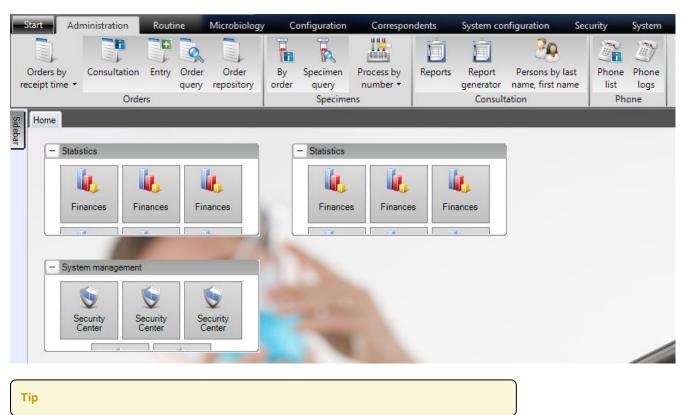
Customizable user interface theme (MATE-03532)

The user interface introduced with GLIMS 9 was designed to support multiple themes. A new setting is now available to switch between Blue, Silver and Black themes.

From the main menu, choose Start -> System management -> Customize -> MATE.



Re-login to see the new theme.



When a production database is converted to a test database, it is highly recommended to choose a different theme to more clearly distinguish between the two environments, thereby avoiding configuration changes in a live environment.

Printing tree views (MATE-03704)

It was no longer possible to print tree views.

This has been corrected.

Issue when editing table menu (MATE-03728)

When editing a table menu on a client PC, an issue could occur when the client was using a different genro database than the AppServer. The menu structure was not shown in the tree view.

This has been corrected.

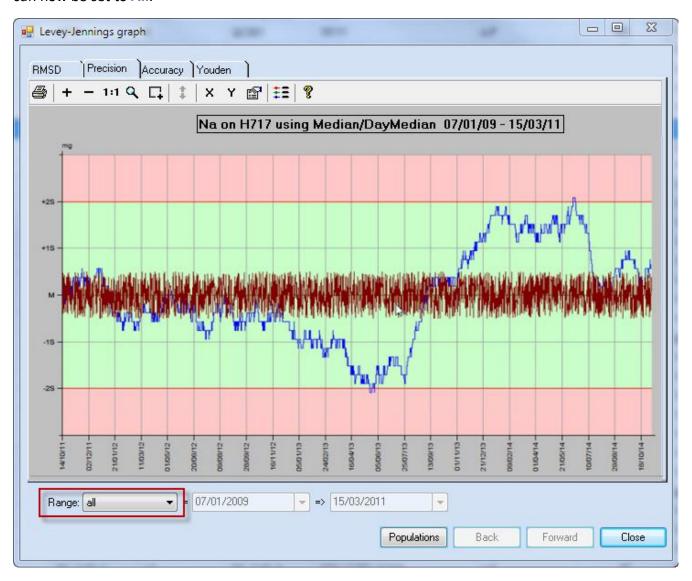
Improvements for default menu structure (MATE-03735)

Some improvements have been made to the default start menu structure.

Quality control

Number of data points on QC graph (GLIMS_QC-00656)

The maximum number of data points on a QC graph is no longer limited to 1000. The Range option can now be set to All.



Note

It may take a while to draw the graph when trying to display a very high number of data points.

Blood transfusion

Issue with "Skip setup" for Blood product order advices (GLIMS-06809)

An issue was detected with the Skip setup option when generating Blood product order advices.

This has been corrected.

Microbiology

New MISPL function AntibioticResult.AddComment (GLIMS_BAC-01091)

A new MISPL function **AntibioticResult.AddComment**(*String* **Comment**, *Logical* **Append**) has been introduced to allow adding comments to an antibiotic result via MISPL.

It has two parameters:

- 1. Comment: text to be added as comment.
- 2. Append:
 - 1. True: the specified text will be appended to any existing comments.
 - 2. False: the specified text will replace any existing comments.

Lab archive

Object info not shown in Item storage browser (GLIMS_SERO-00143)

The Item storage browser (e.g. select a Rack and choose Contained items) did not show object information.

This has been corrected.

HLA

New MISPL function GetHLAAntigen (GLIMS-06881)

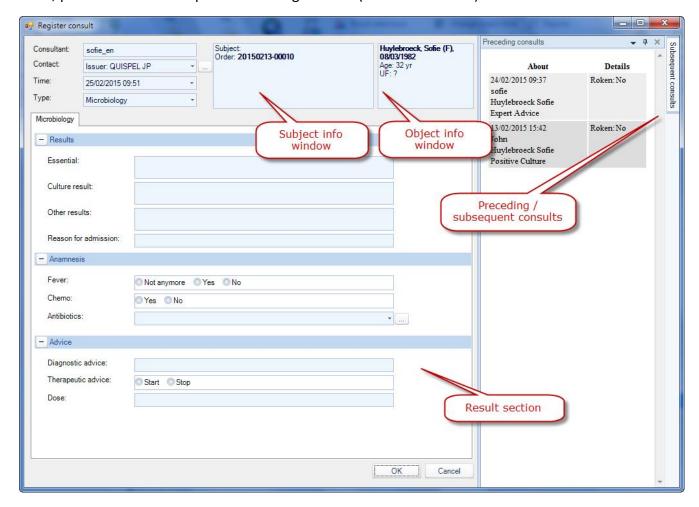
A new MISPL function **GetHLAAntigen(<AntigenName>)** has been introduced to easily access information of a specific HLA antigen.

Example HLAAntigen MyHLAAntigen; String AntigenName; AntigenName := "A*020102"; MyHLAAntigen := GetHLAAntigen(AntigenName); Message(IfKnownString(MyHLAAntigen.Name) + " - " + IfKnownString(MyHLAAntigen.Description) + " - " + IfKnownString(MyHLAAntigen.SortString));

Consult registration

New module for extended consult registration (GLIMS_CONSXT-00002)

A new module has been added in order to allow registering consults in more detail. For more information, please check the chapter Consult registration (extended version).



Statistics

Issue in generic statistics (MATE_STAT-00153)

For some database tables (e.g. Consult), the generic statistics could produce an error:

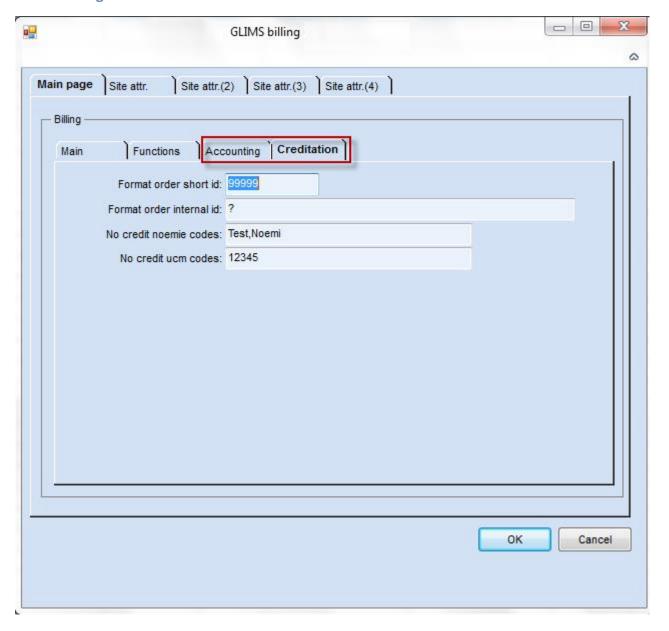
"BUFFER-FIELD ..._Id was not found in buffer b_..."

This has been corrected.

Billing

Conversion of SpecificSite-based site attributes (GLIMS-06651)

A number of billing related, **SpecificSite**-based site attributes have been converted to real database fields. They can be accessed from the main menu via **Start** -> **System management** -> **Customize** -> **GLIMS billing**.



Site attribute	New database field	Field label	Displayed in
_CashRegistermandatory	ssit_CashRegistermandatory	Cash register mandatory	Tab Accounting
PaymentsViaInvoice	ssit_PaymentsViaInvoice	Payments via Invoice	Tab Accounting
Allowed Bank Operations Attr	$ssit_Allowed Bank Operations$	Allowed bank operations	Tab Accounting
_PostFinanceReference	Ssit_PostFinanceReference	Post finance reference	Tab Accounting
_FormatOrderInternalId	Ssit_OrderInternalIdFormat	Format order internal id	Tab Creditation
_FormatOrderShortId	Ssit_OrderShortIdFormat	Format order short id	Tab Creditation

Site attribute	New database field	Field label	Displayed in
_lgnoreNOMIERejCods	Ssit_NoCreditNomieCodes	No credit Noemie codes	Tab Creditation
IgnoreUCMCofresRefus	Ssit NoCreditUcmCodes	No credit Ucm codes	Tab Creditation

Multiple pre-payments in quick invoice (GLIMS_BILL-02817)

An issue was detected for multiple pre-payments in the quick invoice program.

This has been corrected.

Financial export in "Xtenso" format (GLIMS_BILL-03034)

When exporting financial data in the **Xtenso** format, field 66 (Execution time) was not always set correctly.

This has been corrected.

Pre-configuration of order crediting (GLIMS_BILL-03065)

It was not possible to pre-configure the second screen of the order crediting function.

This has been corrected.

Marking order sets as "Manually updated" (GLIMS_BILL-03110)

In a specific case, an Order set could falsely be marked as Manually updated.

This has been corrected.

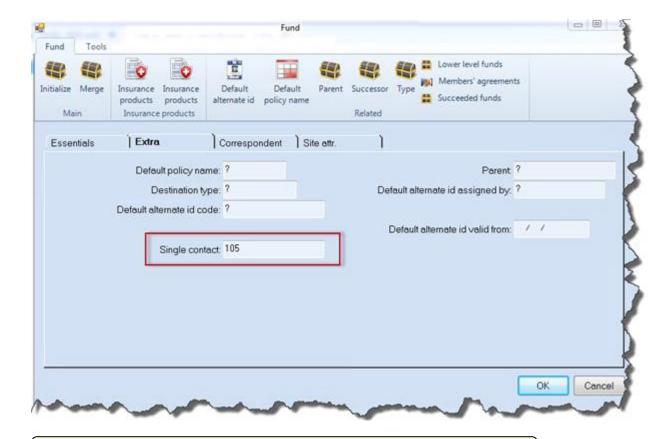
Billing rules for isolations (GLIMS_BILL-03117)

When the Billing rule field Scope was set to Isolation, any billing rules defined on Microorganism or Isolation test level were not applied.

This has been corrected.

Financial export in "RIZIV/MyCareNet" format (BILX_CARE-00008)

When exporting financial data in the RIZIV or MyCareNet format, GLIMS now allows to include a Single Point of Contact for some funds.



Note

- As this is currently only supported by the Christelijke Mutualiteiten, only a single fund needs to be updated. This will typically be fund 100.
- Customers who already implemented this functionality via the Send MISPL function can replace this by using this new field.

Payment import in "MyCarenet Facturation" format (BILX_CARE-00010)

The payment import program now supports the MyCarenet Facturation format.



Messages

The supported message types are 920900 and 920099.

Logging

Any rejections are logged in a LogType named Mycarenet facturation response.

Financial export in "MyCareNet" format (BILX_CAREV-00006)

When exporting financial data in the MyCareNet format, GLIMS now exports additional Payment agreement fields:

- 1. MyCareNet contract No
- 2. Start / End date of consultation period
- 3. Reference number of the payment
- 4. Consultation date from MyCareNet

Payment import in SEPA XML format (BILX_GSEPA-00004)

GLIMS now allows to import payments in the SEPA XML format.

Financial export in "HPRIM XML 1.04" format (BILX_HPRIMXML-00001)

GLIMS now allows exporting financial data in the **1.04** version of the **HPRIM XML** format. The following changes were implemented:

- 1. The physician's ID (Correspondent.ExternalId) is now sent as numéro RPPS or numéro Adeli, depending on the length of the external id.
- 2. Patient identifications assigned by providers INS-C and INS-A can be exported.
- 3. Some minor changes have been applied to comply with the new file definition.

Analyzers

Extensions for result dilution (GLIMS-06835)

The support for result dilution has been extended. For more details, please check the chapter Dilutions.

Downloading dilution information to analyzer (GLIMS_ANLZ-01062)

When an analyzer queried for microbiology tests, GLIMS did not include dilution information in its reply message.

This has been corrected.

Communication

Connection with LAS automation system GLP (GLIMS_ANLZ-01075)

GLIMS can communicate with <u>GLP-Systems</u>. The GLP system is designed to deliver tubes for diagnosis individually to analyzers. The GLP system itself will not perform diagnosis, but transport the tubes.



Click here for a full description of the GLIMS - GLP connection.

Issue with shutdown of services (MATE_COMHL-00272)

Problem description

GLIMS offers a Monitor services function which allows automatic restart of services and translators that unintentionally stopped. However, in a specific case, this function could wrongfully interfere with the Shutdown services function.

Case description

- 1. A user executes the **Shutdown services** function.
- 2. To avoid that the **Monitor services** function immediately restarts the stopped services & translators, the **Shutdown services** function first stops the task scheduler for the **Monitor services**.
- However, an issue could occur when a second task scheduler was defined for the Monitor services function. After a Shutdown services, this second task scheduler could automatically restart the first task scheduler for Monitor services, which would in turn restart all stopped services & translators.

Solution

For all stopped Services, the Shutdown services function will now set the new option Allowed to start to No until the function is fully executed.

- The Monitor services and Startup services functions will not start any service where Allowed to start is set to No.
- When the shutdown is complete, the option Allowed to start for the services will be set to Yes.

 A Service function Reset status has been added. It can be executed by System managers in order to manually change the Allowed to start option (and thus prevent services from being started).

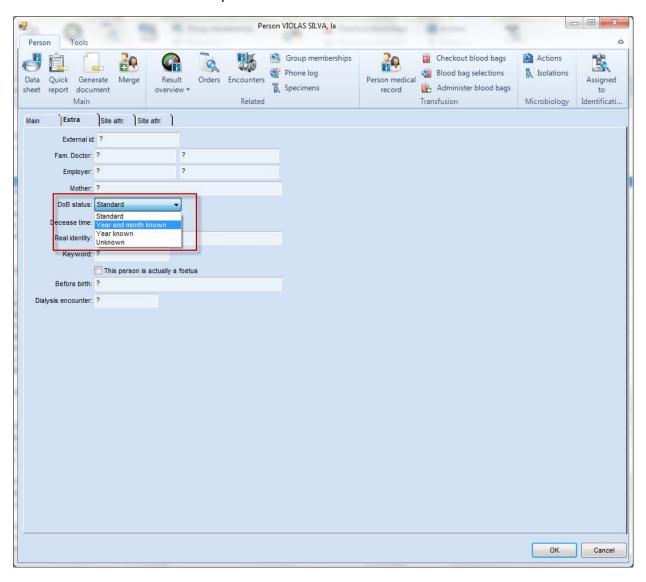


Export of partial birth dates (GLIMS_PX-00024)

For patients of which the birth date is not fully known (e.g. **DoB status** is **Year and month known**), the format of the actual birth date has been changed when exporting it to an external system.

Date of birth status

The date of birth status can be specified in the Person details.



Format of exported birth date

DoB status	Previous versions	Now
Standard	19981201	19981201
YearAndMonthKnown	19981200	199812
YearKnown	19980000	1998
Unknown	00000000	(empty)

Watchdog

Support for monitoring Report builder services (MATE_RB-00040)

Watchdog version 5.6 has been extended to support monitoring of Report builder services. This modification ensures that GLIMS sends the necessary information to the Watchdog daemon.

Watchdog 5.6 is available for GLIMS 9.5 (WatchDog-00203)

Watchdog 5.6 is available and provides support for Service groups and Report builder service.

For more information, please check the Watchdog documentation .

Security

Issue with special system manager privileges (MATE-03689)

Background information

System managers have access to all fields, functions and tables. They also have the authority to assign privileges to users.

Exception: system managers will not have access to functions, tables or fields protected by the _ SysAdm_NoPriv1 and _SysAdm_NoPriv2 privileges if these privileges are not explicitly assigned to them.

Issue

The _SysAdm_NoPriv1 and _SysAdm_NoPriv2 privileges were not checked when they were assigned to a role instead of to a user.

This has been corrected.

System management

Municipalities in configuration export for CyberLab (GLIMS-06422)

In order to allow synchronization of configuration data with CyberLab, a dedicated export tool is available. This tool now also allows exporting Municipalities and Postal codes.



Note

CyberLab expects the country to be defined as a ISO two letter-code.

- GLIMS will try to match the country code, as defined in the Country table, with the ISO 3166 two-letter or three-letter code (see http://en.wikipedia.org/wiki/ISO_3166).
- If this fails, then GLIMS will try to match the ISO 3166-1 English short name of the country with a translation of the country, as defined in GLIMS.
- If the GLIMS Country code cannot be mapped with an ISO code, then an error will be shown and the municipality export will fail.

It is recommended to use the ISO two-letter or three-letter code as country code in GLIMS.

Extensions for marking database as test database (MATE-03734)

A new function is available that allows converting a database to a test database. It is available from the main menu via Start -> System management -> Database -> Convert this database to a test-database.

This function

marks the database as test-database by enabling the This is a test database option in the general settings.

- renames service and translators and turns off their auto-start.
- disables all cron jobs.
- clears the Watchdog port configuration.

Note

It is no longer possible to mark a database as test database by enabling the **This is a test database** option via Start -> System management -> Customize -> MATE.

Miscellaneous

Issue with sending emails from within GLIMS (MATE-03695)

An issue was detected when trying to send external emails from within GLIMS.

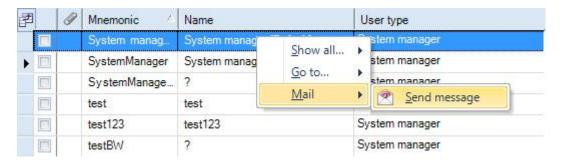
This has been corrected.

Sending mail to all users with a specific role (MATE-03709)

Support has been added for sending internal mails and/or emails to all **Users** which have been assigned a specific **Role** in the application. This makes it easier, for instance, to reach all system managers from within the application with a single message.

Interactively

Select a Role and choose the contextual menu/ribbon item Send message.



Via MISPL

Use the new sc_Role-based MISPL function SendMail.