6.2 Features Highlights

- Scheduled Jobs
- Content Statuses
- Groovy Triggers
- NovaSeq Support
- User Avatars
- Dashboard Widget Update
- New License Model
- More Flexibility for Content Flows
- Sorting on Grid Templates
- New User Menu
- Version UI Refactored
- Reference Data
- Switch Buttons
Design Updates

USER MENU AND AVATARS

The options on the top right menu have been moved into the User Menu to provide a cleaner look. Users access notifications with the Notification icon, and other options by clicking on the User Menu icon.

The options available in the User Menu depend on the user’s role in SLIMS. The image on the right shows a regular user’s available options, and the one on the left shows all of the options. The menu displays the user’s name, role, and layout, and the options have been expanded to include easier access to profile, expand/collapse top bar, switch layout options, Settings, Refresh, and Logout. User Settings provides a screen where the password can be reset and the user’s avatar can be selected.
Design Updates

CHECKBOXES CHANGED TO SWITCHES

In many places, the style of checkboxes has been updated to toggle buttons or switches. Instead of a check to indicate a filled value, the switch can be set to gray for an unfilled / false value, and blue for a filled / true value. For example, a content type that is active would have a blue switch, and the switch could be changed to gray to make it inactive.

This changes the style of many of the standard fields in the system, but only impacts custom fields that are of ‘checkbox’ display type. The changes are most notable in Roles, Lab Settings, tool bars such as the Location Detail tab, and standard forms like the ‘Add Custom Field’ form.
Reference Data Module

The Reference Data Module supports any tables and records that are added to use as a reference in Dynamic Custom Fields. Unlike the Diseases, Products, and Sources modules, the Reference Data Module also allows administrators to add new types of entities and cover outlier reference types.

In this module, new reference data types are created so that custom fields can refer to those datapoints, range over reference data, and can be restricted by reference data types.
New License Model

There are 3 license models going forward: Named, Concurrent, and Mixed. This is a way of keeping track of how many users a customer can have using their system.

- Named users are specifically identified, and only those specified can be active in the system.
- Concurrent users is the total amount of users that can be logged in at the same time. The Mixed model allows for a certain amount of Named and Concurrent users both.
- Service accounts are Genohm Administrators, SLIMSGATE accounts, or Vaadin accounts that need to connect to SLIMS for maintenance.
- Users that have read-only or Order module only access are considered ‘Licenseless’ users and do not count as Named or Concurrent.

The license file also identifies whether the customer’s license is for the Standard or Premium version, which corresponds with the modules available in SLIMS.

Note: Service type accounts are not restricted by license.
Scheduled Jobs

NEW SCHEDULED JOBS MODULE

Notifications are no longer assigned a CRON expression in the Email Templates module, but that functionality has moved to a new module in 6.2 which allows for more configuration.

In the Scheduled Jobs Module, CRON expressions can be built using Apache Quartz’s syntax, and value expressions provide the functions for email, notify, warn, and standard functions like log and empty. Error checking is done when an active expression is saved to prevent incorrect CRON and value expressions from being created for scheduled jobs.

Tips
Expressions can be worked on and saved until they are activated, and then are checked for errors.
A new Groovy method was added that allows field values to be triggered when a related field is updated and saved. The triggerRecalculation expression is put in-line in the field’s value expression to identify the rules that cause the related field to either skip retriggering, or to be retriggered.

For example, with two Content Types “Lot” and “Sample,” when a Sample is added it has a field to identify the Lot. The Lot it is tied to has values for Total Samples, Number of Used Samples, and Number of Available Samples. triggerRecalculation can be used to trigger the Used and Available values to update in the related Lot when new Samples are tied to it.
Dashboard Widgets Update

- An update was made to Widgets and Dashboards that allows Vaadin flows to be added to a Dashboard the same way as SLIMS GATE flows.

- Additionally, grid widget creation has been migrated into the Grid Templates module to centralize that function. Existing grid widgets have been migrated into the grid templates module in this release version, and all further grid widgets will need to be created in Grid Templates. This also allows for any existing grids in the module to be added to a Dashboard as if they had been created as grid widgets.
Content statuses are now configurable in the Statuses module, aligned on orders. They can be added and removed, and status transitions can be configured.
Workflow Changes

Support for NovaSeq sequencers was added to Workflows with a similar integration to HiSeq. This covers the 2 or 4 lanes on a flow cell and involves:

- A new experiment template in Workflows: NovaSeq execution. The renderers used are essentially the same as in HiSeq,
- Workflow Management: The Experiment Step for lane attribution has an option to set the number of lanes to 2 or 4.
- Workflow: In the lane attribution step, there are only 2 or 4 lanes visible.
- The pickup phase is essentially the same as in HiSeq as well.
Workflow Changes

TRANSFER TO NEXT STEP STRATEGY IN PROTOCOLS

A new strategy has been added for transferring used and unused samples together to the next step in an experiment. This can be used for content that went through a mix or derivation, but some of it was not used and still needs to be tracked.

The function "Output and Unused Input" can be used to take not only the resulting output of content that was used into the output (or next step), but to bring along any unused content as well. This strategy is available in Workflows and ELN.
Workflow Changes

VERSIONING USER INTERFACE

- Two updates were made to the User Interface on modules that require Versioning which will save space and present a more open display. The version warning message has been made more compact so it shows up as a tooltip when hovering over the Version button, and the Version button has been placed at the top-right of the screen.

- The second change is moving the Versions table into a dropdown list because the information takes up valuable space and does not always need to be displayed. It will still be available in the dropdown, and the table can be expanded as a middle panel by clicking the Show All button.

The current draft has been edited since the last version was made. This means the changes to this protocol template will not yet be applied to new protocol runs.
Updates for Fields

CUSTOM FIELDS ON STUDY TABLE

The application of Custom Fields is extended to enrolling content, so that the fields can be entered as the content is enrolled in a study. Additionally, custom fields can be viewed in the Studies tab by right-clicking records in the tab and selecting ‘Open Detail,’ and updated by editing the grid in the Studies tab or by right-clicking ‘Open Enrollment Details.’

Also, content is prevented from enrolling in a study twice because custom field values would not be updated each time, and could cause issues.
Updates for Fields

EQUATIONS ON DEFAULT FIELDS
A method to use dynamic filter expressions on default fields in SLIMS was created. For now, only the ctn FK_product field has the necessary attribute to allow dynamic filter expressions. More details can be found in the 6.2. Admin Manual.

Note: This can be done on certain fields without foreign keys or layers of logic (ex: will not work on content type).
Sort Grid Templates

SORT ON GRID TEMPLATES

In the columns configuration (lower grid), the ‘Sort On’ action is available in the execution menu and can be favorited. Clicking the action opens a pop-up window.

The left grid contains the list of columns which can be dragged over or moved to the right grid with the arrow buttons. The order a column is placed in decides which field data will be sorted first. Columns can be dragged into a different sort order, and sort direction can be set to ascending or descending. The way this works is data in the grid will be sorted by the first column, and then by the second column, and so on.