RWTH cBMB StarLIMS Development

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StarLIMS

StarLIMS is a web-based Laboratory Information Management System (LIMS) allowing to manage various lab processes, including samples archiving, materials and ressources management, audit trail, flexible calculation and data analysis tools.

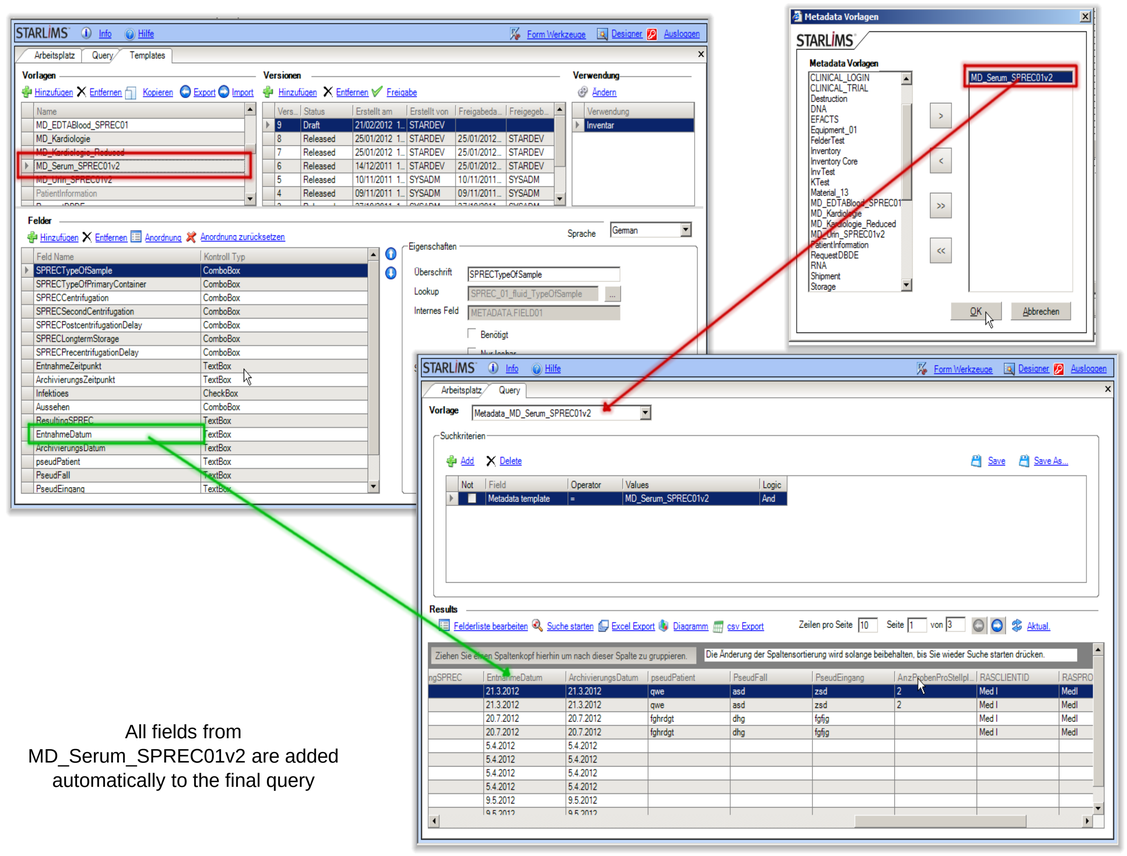
Objectives

- reducing number of time-consimung procedures and facilitating samples archiving in BioRepository
- routine procedures automation (e.g. QBE template generation)
- generating offline documentation (e.g. printable container grid, QBE results export)
- extending BioRepository with new transactions (e.g. moving samples within container, changing external ID)

Automatic QBE Templates Generation

QBE (Query-by-example) template for the selected metadata template can be generated automatically, without using QBE Manager. The resulting query contains essential sample characteristics such as ID, material type or project and all the metadata fields with the corresponding captions.

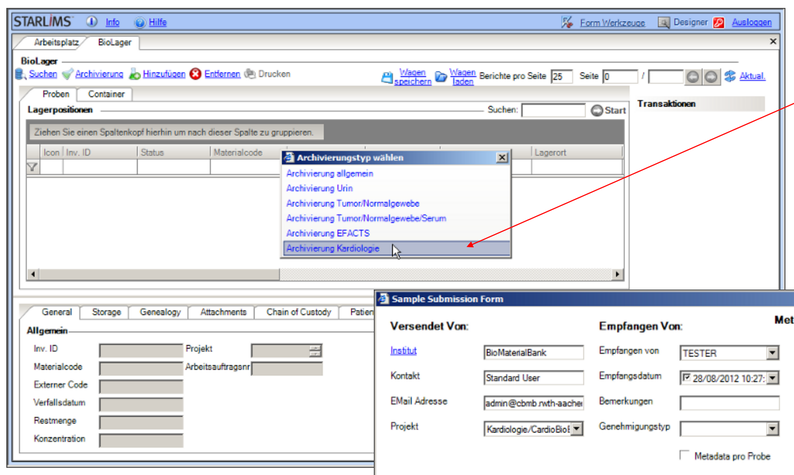
Generating QBE template for the metadata template MD_Serum_SPREC01v2



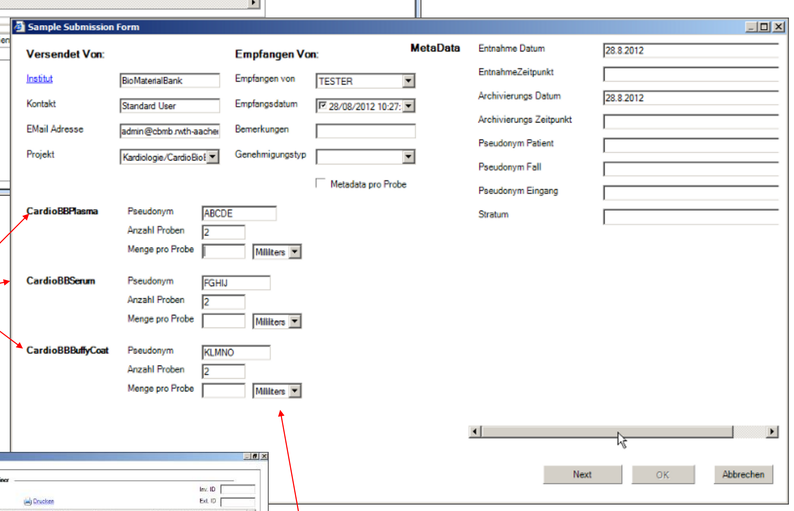
All fields from MD_Serum_SPREC01v2 are added automatically to the final query

Enhanced Samples Archiving

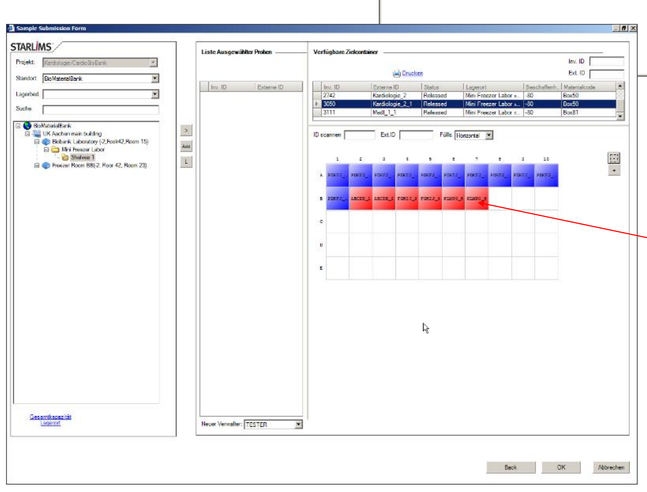
- Novel interfaces for samples archiving according to certain material types are introduced reducing the number of data entries and location positioning
- Samples of similar types can be archived using a single interface
- Previously selected values are remembered and used as pre-selection



Sample Submission Form for cardiology project



Arbitrary many samples of material types plasma, serum and buffy coat with the same metada set can be archived using one form.



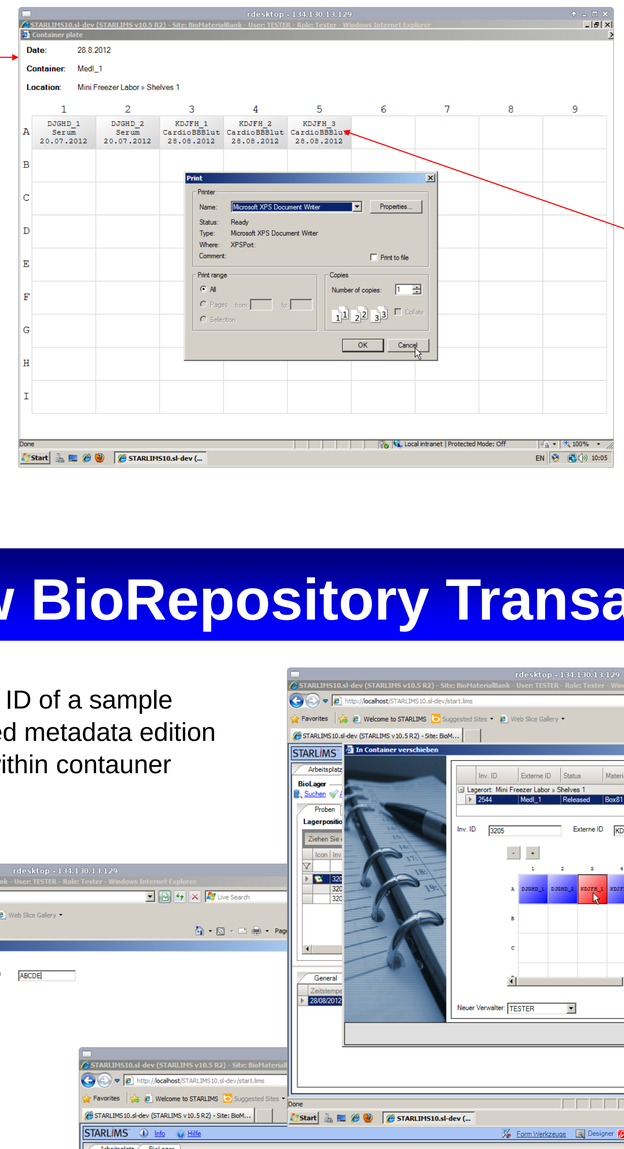
User only needs the following data:

- pseudoyms
- samples quantity
- amount per sample
- samples location in container.

All other parameters are selected either automatically or basing on previously selected values.

Printable Container Grid

Actual date, container ID and location path



Each container grid cell contains information on sample ID, material type and archiving date.

New BioRepository Transactions

- Changing external ID of a sample
- Password protected metadata edition
- Moving samples within contauner