WebLab

COMPREHENSIVE LABORATORY INFORMATION MANAGEMENT SYSTEM

SUPPORT FOR LABORATORY PROCESSES

SUPPORT 24H/7

TECHNICAL SUPPORT CENTER
Warranty service
Post-implementation service

WORK AUTOMATION

The system enables integration with equipments as well as with 3rd party systems

YEARS OF EXPERIENCE

We combine understanding of the needs of laboratory staff and experience in creating and implementing web applications

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MICHAŁ BARCZYK

QUOTING

AREA	DESCRIPTION
Quotation	Preparation of quotations and offers in accordance with the applicable form template, creating offers in the form of .pdf, .xls files, saved in order to make them available to customers (electronic signature and sending offers by e-mail). Storing all conversations with the client (including commercial notes and correspondence: e-mail, faxes, scans of paper correspondence) grouped into threads, e.g. regarding an inquiry or other manually defined.
Offers	Saving documentation related to a given offer in a document database (e.g. inquiry, additional arrangements, negotiations, contract, etc.).
Offers+documents	An option to create an offer outside the system (if such are the requirements of the offer procedure) and attach its scan in the database.
Customer management	After the customer accepts the offer, this information is recorded in the system, and the terms of the accepted offer are available for inspection by those who perform the test and by those who settle the service. Managing information about clients and assigned projects. Support for invoicing, quoting and sampling schedules. Assigning price lists to the reagent used in the sample lifecycle, ongoing monitoring of reagent consumption costs and available laboratory resources. Possibility of integration with the most popular ERP systems.
Price lists	Possibility to create multiple price lists according to various criteria (according to the contractor, contracts, discounts, laboratory, etc.). Price lists are historicized and versioned. Using existing price lists to create new ones, introducing discounts from default values while creating offers / price lists.

SAMPLE REGISTER

AREA	DESCRIPTION
Division of samples	Dividing the sample into sub-samples (containers) with the possibility of sending it to the laboratory (in different locations) for determinations with the indication of the leading laboratory.

SAMPLE REGISTER

AREA	DESCRIPTION
Outsourcing	Redirecting orders to another laboratory.
Samples - attachments	At the stage of registration of the order, it is possible to attach any correspondence, source documents (scans, e-mails), constituting the basis for taking the order (e.g. collection reports).
Sample register	Access to the sample register and automatic update of parameters related to the sample life cycle. Specifying the minimum requirements for a sample in the catalog of services (analyzes) available in the laboratory. Verification of the fulfillment criteria for the implementation of the test. The ability to register a whole series of samples at once.
Scope of test	Creation of a scope of test based on predefined templates.
Test statuses	Preview of test statuses with alerts about undesirable situations (delays, etc.).
Notifications	Creating alerts about the completeness of the order or other statuses to the person responsible for the preparation of final documents.
Labels	Generating barcode labels and reading barcodes in specific steps to increase ergonomics and avoid mistakes.

SAMPLE COLLECTION

AREA	DESCRIPTION
Sampling protocols	Storing information about a sample and linking it to interim results, series, order. Adding a comment at the sample collection phase (in the order). Electronic signature of sampling protocol.
Editing samples	Possibility to edit, cancel or dispose of a sample or a batch of samples at any stage by the people with appropriate authorizations in the system.

SAMPLE COLLECTION

AREA	DESCRIPTION
Notifications	Generating alerts triggered by changing specific data / values available in the system and the possibility of any configuration of such alerts.
Collection dates	Giving a date for the implementation of sample tests. Possibility to supplement information about a sample from predefined dictionary data. Registration of samples with deviations (e.g. weight is insufficient).
Copying orders	Possibility to create new orders, using the mechanism of copying previous orders. Searching and registering a sample in the system for testing, e.g. a sample from the warehouse, in order to perform repeated, control or additional tests.

SAMPLE LIFECYCLE MANAGEMENT

AREA	DESCRIPTION
Lifecycle template	Configurable sample lifecycle for quality control. Possibility of adjusting the stages of preparation, submission of material for the test, as well as the levels of acceptance/authorization of the results.
Rating of usefulness	Assessment of the suitability of the sample after acceptance for testing, the possibility of adding a comment (adding remarks/comments available at each stage of the sample lifecycle). Comment list with time stamp, location, and lifecycle stage available to authorized users.
Search	The ability to view and search samples by any parameters.
Multi-step authorization	Authorization of test results in a multi-stage manner. Including the ability to add authorization, acceptance, review, etc., after entering the results, with the ability to configure the approval process.
Transactions	View any transaction related to the tested sample. Displaying the history of the sample container lifecycle in the laboratory.

RESULTS AUTHORISATION

AREA	DESCRIPTION
Calculations	Working on source, partial, intermediate and final results. Calculation of final results and other parameters (e.g. uncertainty). Create standard calculation templates.
Control ranges	Describing the flagging logic of each parameter, e.g. with intervals or formulas. Configuration of flags and parameter limits depending on the device, customer, job, etc. Parameters may have different limits for different customers. Automatic determination of the accreditation of the result with the possibility of manual correction.
Traceability	Configurable, multi-stage approval of the results with the identification of the person who performed the test and the person approving the results. Possibility to download the results from the laboratory equipment directly to the database or indirectly using a file. Automatically determine if the result is from a sub-contract.
Compliance with standards	Compliance with the standards: PN-EN ISO / IEC 17025; PN-EN ISO / IEC 17020; PN-EN ISO / IEC 17043; PN-EN ISO 9001

REPORTING

AREA	DESCRIPTION
Inquiries	Create advanced lists from any part of the application. Ease of creating reports based on a given search filter. Export of data in CSV format for later analysis in third-party software. Create reports tailored to your needs by further filtering information using the built-in database query wizard.
Report generator	Advanced report generator. The ability to configure a new report by a trained user using external tools, e.g. Crystal Reports, Jasper Reports, etc.
Report templates	Automatic generation of test reports according to various templates, including those defined by the laboratory, using a standard tool. Possibility of annexing/correcting test reports along with versioning changes.

REPORTING

AREA	DESCRIPTION
Correction of reports	Possibility to edit/correct the report (versioning control). The functionality of approving reports and statements.
Reporting by electronic signature	The possibility of using a qualified electronic signature on test reports and protocols.
Presentation of statistics	Visualization of results in charts along with various statistics. Calculation of calibration curves, trend analysis.
Reports	Generation of full and partial reports with the possibility of including or excluding selected results. For example, a customer report with information on how the individual results have changed on a month-to-month basis.

CUSTOMER PLATFORM

AREA	DESCRIPTION
On-line portal for customers	The customer has the ability to monitor the progress of work on an ongoing basis. The automation of sending the analysis certificate to the platform allows for a simple and intuitive review of the results of the commissioned material for analysis. Access to the results of the ordered tests. Preview of all statuses and results of current and historical analyzes. Download and print reports for samples, orders, periodical statements in the web portal.
External user registration	Ability to view offers from the customer portal. Creating a sampling order, performing analyzes. Placing orders and inquiries in the system by customers. Initial sample data entry.
On-line portal for patients	Current preview of the order in progress. Automatic upload of the test certificate to the platform and sharing of the results of commissioned diagnostic tests for patients assigned to the order, along with information about the doctor in charge of the test and related information. Fulfilling orders for the presence of the virus responsible for COVID-19.

SUBCONTRACTORS

AREA	DESCRIPTION
Register of subcontractors	A register of subcontractors containing information on the scope of the tests that they perform, price lists, address details, contact persons, accreditations, and certificates. Full history of previous orders and access to documents provided by the subcontractor. Creating a register of subcontractors, along with the scope of analyzes, methods, price lists and the possibility of supplementing the analytical scope on an ongoing basis, as information about the ordered research is received. Downloading scans of test reports from subcontractors with the possibility of linking them to the sample.

QUALITY CONTROL

AREA	DESCRIPTION
Statistical module	Creation of control charts, configuration of statistical data tracking rules in the form of simple and legible quality control charts. Automatic analysis of results, which allows for easy detection of irregularities and gives the analysts instructions about the need to introduce measures to improve the production process. Advanced sample quality control charts and the creation of control charts based on the system's built-in statistical analysis algorithms. Display trends in sample results in a simple and clear graphical format. Determination of regression coefficients, statistical significance coefficients and the value of the variable X based on the regression curve. Performing analysis of variance and regression residual analysis. Possibility to compare two series, including the comparison of the variance of two series with determination of the statistical parameters of both series and the Grubbs' coarse error test for one series.
Uncertainty modulus	Issuing control and blind samples, etc. Specifying the sub-steps in the uncertainty estimation. Export of test data to statistical software.
Specification register	Enabling the evaluation of the test results of samples on various test sets. Compare current results with other specifications in addition to the original specification in the selected test plan or template. Possibility to evaluate any set of results available in LIMS against any set of specifications defined in the system.

QUALITY CONTROL

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AREA	DESCRIPTION
Control cards	Possibility to generate Shewhart control card. In case of violations, the system will automatically display an alert informing about violations. Possibility to designate a center line (average), warning lines, and control lines. Available tests: coarse error (Grubbs), systematic error (two-sided t-Student) and configuration error (1 point outside the A zone, 9 consecutive points on the same side of the center line, 6 consecutive points constantly increasing or decreasing, 14 consecutive points after alternating ascending and descending turns, at least 2 of 3 consecutive points in zone A, at least 4 of 5 consecutive points in or outside zone B, 15 consecutive points in zone C above or below the center line, 8 consecutive points outside zone C after both sides of the centerline). Batch statistic parameters displayed on the card. Possibility to generate a Shewhart control chart for both single measurements and averages. Comparing two control charts - coarse error (Grubbs) tests for both cards, comparing standard deviations (two-sided F-test), comparing mean values (two-tailed Student's t-test).
Units of Measurement	Categorize units of measure into types and define their conversion. Convertible to appropriate reference conditions.
Register of procedures and tests methods	A supervised and versioned list of test standards and procedures describing the method of conducting the test. The ability to view electronic documents added to the system or available via a link to the DMS system.
Tests	Configuration of all tests that can be performed in the laboratory. Assignment of analytes, methods, apparatus for measuring results, and reagents used in carrying out the test.
Tests panels	Grouping of repetitive test sets into templates that include the scope of the tested parameters, the method of performed test, a dedicated type of apparatus, the amount of test material needed, the calculations used for the final result, the place of taking the sample for the test and the place of execution.
Audit	Configurable scope of data covered by the change supervision audit. Each change with a timestamp and the person making the change. The ability to easily search for a change in each supervised structure. The ability to export the history of events to CSV format.

QUALITY CONTROL

AREA	DESCRIPTION
Qualified electronic signature	Possibility of integration with a certified supplier of qualified electronic signature. Automatic creation of a qualified electronic signature on any document generated by the system (e.g. test reports).

MANAGEMENT SYSTEM

AREA	DESCRIPTION
Building processes	A tool for building laboratory processes, that includes process steps, user decisions, status changes, defining a set of fields visible in a given step, permissions to edit fields in a given step, notifications about the completion of a given step by the user. The fields configurable for each step can be: a text field, a date field, a selection list based on dictionary values, an attachment, a multi-line text field with the possibility of text formatting. Process field layout configurable by a user with no programming skills.
Metadata	The metadata provides an area for extending information based on the fields specified in the template. The possibility of constructing templates of additional fields without the need to extend the database structure. Assign templates to each part of your application logic for final use, e.g. additional sample information in final reports. Configuration of field templates and signatures, with the possibility of connecting them to each application and module separately.
User Interface	Possibility of changing the names of columns, their position, width, hiding, and adding. Saving the GUI configuration at the user level. Customizable Dashboard individually assigned to the user.
Configurable desktop alerts	Create dedicated dashboard alerts for routine activities. Notification system built into the application with the possibility of their configuration for each part of the system, incl. notifications about the need to re-certify the user, performing routine activities for the existing devices, such as calibration, calibration, checking.
Configurable user shortcuts	Creating shortcuts to the most frequently used system applications. Unlimited possibilities of configuring shortcuts for easier and more intuitive work in the system.

DOCUMENTATION

AREA	DESCRIPTION
Supervision of documentation	Assigning the tasks to users and their approval. Possibility of any workflow configuration by laboratory employees via the business admin panel. Monitoring the workflow of documents, generating notifications resulting from events in circulation. Possibility to implement processes: document reviews, changes in documents due to external events, document cataloging.
Changes to documents	Implementing alerts to users in connection with the introduction of changes to a given document and the upcoming review of the document. Enforce confirmation that a user has read changes to a document.

SUPPLY

AREA	DESCRIPTION
Consumption of materials	Control of materials consumption (e.g. reagents) in relation to the number of determinations.
Suppliers	Keeping records of suppliers with the offered purchase items, their prices and purchase conditions. The files contain detailed information about suppliers whose products are used in the laboratory. Supplier information management - organizing their contact details, determining the location (supplier code, name, telephone number, fax, website, etc.). Management of data about suppliers depending on: date of order / purchase with related documents (delivery note, invoice, etc.), assortment, prices. Adding metadata and reviewing vendor certificates.
Purchase requisition	Support for the purchase requisition registration process with the approval stage marked. The process covers both the demand for materials and services. Defining detailed technical parameters recorded in the demand by authorized persons.
Placing orders	Sending orders to the supplier, automatic registration, confirmations taking into account the declared completion date and assigning costs to the declared delivery month (with the possibility of manual correction). Order register, including the workshop, date of sending the order, implementation status, assortment, etc.

SUPPLY

AREA	DESCRIPTION
Purchase history	Archive purchases database with the possibility to search for information about the purchase of a given material, eg according to the quantity purchased in a given year, quantity purchased from a given supplier, purchase price, etc. Possibility to modify the criteria according to the needs.
Material register	Defining the materials used in the laboratory, along with a complete set of information about the material (i.e. safety instructions, chemical / physical properties, supplier data, material synthesis recipes, ingredient concentrations, information about the containers in which they are stored). Materials with similar characteristics grouped under the type of material. Information about materials: shelf life, assigned documents, characteristics, attestation, quality certificates, calibrations, certificates, etc. Maintaining a register of patterns.
Price lists	Valuation of the demand, taking into account: currency, offer, counter-offer, the possibility of connecting sent offers, payment date, etc. Automation of entering the amount from libraries of current contracts with the possibility of manual changes. Entering the expected completion date and assigning the amount to the declared implementation month. Sending the requisition for approval after completion of the valuation (all or individual items).

WAREHOUSE

AREA	DESCRIPTION
Sample warehouse	Supervision over the location and storage conditions of samples used for current test and archive samples. Marking each container with an individual barcode. Easily search for an available sample. Chain of custody and the ability to share, combine, and send test materials. Reminders about the need to dispose of tested samples.
Material register	Possibility to set alerts about stock levels. The functionality of the warehouse inventory. Automatic consumption control according to the values defined in the method / test, taking into account the cost of the reagents in the test. Monitoring of storage conditions (e.g. temperature sensors in warehouses, refrigerators, etc.).

WAREHOUSE

AREA	DESCRIPTION
Reagent warehouse	Built-in module for the management of reagents and consumables used in the laboratory, including: - assigning Material Safety Data Sheets (MSDS), - testing the received or created materials, assigning them to the conducted research, - hierarchization of stored materials, - complete supply chain for each item from the warehouse (pickup, consumption, reuse, transfer and disposal), - creating a purchase order based on defined price lists, - invoicing of consumables and reagents through the built-in procurement module, - the ability to assign standard inventory transactions for reagents such as requalification, consumption, disposal, adding a comment, and more.
Purchase requisition	Warehouse management with the use of barcodes. Multiple location support. Supervision of admissions to the warehouse with accuracy to the packaging. Possibility of dividing packages. Adjusting the inventory after inventory. Entering purchase prices and inventory valuation. Generating reports on turnover and inventory, quantity and value.
Locations	Sample / material storage management. Storage locations defined in a hierarchical structure that reflect the physical condition of the laboratory. Providing flexible selection of the degree of detail of the location description (Building 1 -> Room 209 -> L3 refrigerator -> Shelf P2) and determination of the material storage conditions (including temperature, humidity, sunlight).
Reports / notifications	Generating notifications about the expiry date and the drop in the amount of reagent below a defined level. Generating reports (a list of the costs of orders completed / in progress, broken down by the type of orders (materials, services, etc.), workshops, dates of sending the order, etc.). Monitoring the value of the current requirement and shipped orders in relation to the planned costs. Ongoing control of items put on stock with receipt documents.

EQUIPMENT

AREA	DESCRIPTION
Equipment supervision	A comprehensive module for supervision over control and measurement equipment. Support of the calibration process with the use of standards or reference materials identified in the system, service and maintenance schedules. Electronic equipment log of performed activities. Preventing the use of a defective test laboratory devices. Storage of attachments in connection with the laboratory equipment, e.g. instructions, certificates, etc. Generating automatic notifications about upcoming schedule events. Possibility to submit complaints / warranty repairs. Create a list of laboratory equipment with statuses and alerts. Adding, removing and editing measuring and testing equipment. Assigning measurement and research equipment to laboratories, along with determining the exact location of the device. Possibility of assigning additional properties (numbers) to devices - e.g. inventory number. Linking equipment with analytical methods, to authorized users, broken down into supervision categories: eg Calibration, Maintenance, Checking
Equipment control	Creating plans for the control and validation of laboratory equipment and schedules of events: i.e. checks, external calibrations, calibrations, confirmations, preventive inspections due to the time or number of tests performed. Calendar configuration including scheduled use, servicing, training, etc. Schedules can be modified by authorized employees.
Schedule	Schedules of service, maintenance and other activities. Support of the calibration process with the use of standards or reference materials identified in the system.

PERSONEL

AREA	DESCRIPTION
Managing roles and permissions	Linking the applications available in the system. History of user logins to the system along with information on the device from which the connection was made. Ability to search and filter users by qualifications. Introducing certificates/competencies for users, also without training.

PERSONEL

AREA	DESCRIPTION
Training and competency management module	Creating a catalog of training and competencies. Possibility to register and schedule internal and external training. User notifications about upcoming training. Electronic confirmation of reading the training materials. Expiring certification reminders. Access to history (implementation of the employee improvement card) and training plans for each user. Possibility of linking training and permissions/authorizations with the methods and equipment it relates to.
Planning training	Access to the training register, electronic confirmation of reading the training material. Possibility of registering the process of transferring knowledge and assessing the effectiveness of training (in the form of questionnaires). Generating alerts when enrolling users for training. Record the training in the user's calendar - time reservation. Editing or canceling training courses visible as alerts for participants.

ORDER MONITORING

AREA	DESCRIPTION
Orders	Monitoring of limit exceedances (alerts) - financial or quantitative exceedances. Presentation of sales statistics broken down into contracts, customers, tags, laboratories (internal structure). Records and cost calculation for the item sold: current and historical (costs incurred: labor, reagents, depreciation).
Orders / offers	Statuses of events/agreements with the client. The arrangements include the selection of test methods to suit the client's needs. Possibility to change arrangements. Examples: 1) including information that the client has changed the standard according to which the test is to be performed; 2) agreeing on the dates of overdue payments; 3) agreement regarding the mass of the sample.

INTEGRATIONS

AREA	DESCRIPTION
Integration with control and measurement equipment	Full compatibility with the software of the most popular laboratory equipment vendors. Import of ready or raw results for further analysis. Two-way communication, the ability to download information from the laboratory equipment and send data to the device. Integration through the most popular interfaces: file (files in any format), WebService, database.
Integration with external systems	The system is 100% based on the restful web services technology, which enables easy exchange of information with other IT systems from any module. Standard error handling during communication and support for the security of exchanged data. Possibility of two-way data exchange with external systems (e.g. with ERP, WMS etc.) via webservices, database views.

MOBILE VERSION

AREA	DESCRIPTION
Mobile version	Scalable mobile version, available on iOS and Android devices.

ELN

AREA	DESCRIPTION
Electronic laboratory notebook	Increasing efficiency, reducing the number of errors, and thanks to the support in the enforcement of appropriate methods - ensuring their compliance with the regulations. A replacement for paper lab journals. Storing temporary data, results in tables, creating calculations using standard Excel formulas, adding photos, annotations and other attachments. Flexible and intuitive database for capturing and storing data in a central repository. The ability to search, share data while fully complying with the rules of data storage in the organization. This solution allows you to focus on the most effective execution of the work and allows you to test production processes without unnecessary interruptions.

ELN

AREA	DESCRIPTION
ELN module	Entering the results of partial tests in the electronic laboratory notebook (ELN). Taking into account the calculation of partial results, calculating the final results on the basis of partial results, identifying the standards and reference materials used for the tests for the results sheet, introducing constants and variables characterizing the research method, reflecting the process of performing the test in the form of many steps (pages) of an electronic laboratory notebook. Each step can be performed by a different user and have a separate range of fields to be completed.

TECHNOLOGY

AREA	DESCRIPTION
Technological requirements and licensing	Database based on an engine that does not require separate licensing. Can be installed on an operating system that does not require separate licensing - Linux. Availability of the application via a browser. It does not require the installation of additional components on the user's workstation.
Data import	Possibility to configure it by importing static data from files in CSV format. The supplied set of pre-configured import templates allows the transfer of static data. In case of modification of the data structure, the system will automatically update the CSV import templates without the need for any action on the part of the user.

Centrala

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Granteam Sp. z o.o. jest polską firmą informatyczną specjalizującą się w dostarczaniu profesjonalnych, kompleksowych i innowacyjnych rozwiązań IT dla laboratoriów.

Granteam to przede wszystkim ludzie, którzy decydują o rozwoju i sukcesach w naszej firmie. To doskonale wykształceni ludzie, absolwenci najlepszych polskich uczelni technicznych, którzy z pasją poszukują nowych wyzwań oraz wykorzystują swoją wiedzę i wieloletnie doświadczenie, aby dostarczyć klientom najbardziej fachowe rozwiązania.

Posiadamy wieloletnie doświadczenie we wdrażaniu systemów klasy LIMS w laboratoriach i komórkach kontroli jakości. Pomagamy naszymi klientom w integracji oraz utrzymaniu ecosystemu Cloud Computing. Oferowane przez nas produkty należą do grupy najlepszych istniejących na rynku, a posiadane kompetencje są stale rozwijane w kierunkach wyznaczonych przez najnowsze trendy technologiczne w IT.

Profesjonalne rozwiązania IT dla Laboratoriów