LANEXO™ Lab Inventory, Safety and Compliance Management System

Release Notes

LANEXO™ System Release Notes provide a brief insight into updates on the Mobile and Web Applications.

It uses a number logic for the releases of Mobile App and Web App, where the first digit on the version number indicates a new major release with brand new features. The second digit indicates minor releases which adapt existing features and the last digit is intended for bug fix or security fixes only.

Intended Audience

All customers and users of the LANEXO™ System.

Note

Users might have to analyze the impact for additional validation needs of the Application at their site, after the release.

Version History

Date	Version	Description
01-MAY-2020	v1.0.0	Launch of LANEXO™ Mobile App and Web App.
30-JUN-2020	v1.0.1	Bug fix released.
21-OCT-2020	v1.0.2	Bug fix released.
25-NOV-2020	v1.0.3	Patch fix released.
11-DEC-2020	v1.1.0	Improvements, Bug fixes and Security fixes released.
21-DEC-2020	v1.1.1	Bug fix released.
01-MAY-2021	v1.2.0	Improvements, Bug fixes and Security fixes released.
08-MAY-2021	v1.2.1	Bug fix released.
03-JUL-2021	v1.2.2	Bug fix released.

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LANEXO™ System v1.2.2

Release Date: 03-July-2021

Resolved Issues

The following table detail the resolved issues in this release.

Bug Fixes

Feature	Description
My Activities	The audit trail export on my activities page showed an error. This has been fixed.
Backend	Email configuration has been updated for the AWS account Central, West, and East regions.
	Usability issues on the multi-backend selection on the Mobile App has been resolved.
	Scanning a 1D barcode crashed the Mobile App. This has been fixed.
Consumables	SDS Online Link fix has been implemented.
	When adding a new column at a particular position and saving the filter in the Web App, the column reset to the end of the table. It has been fixed.

Security Fixes

Feature	Description
Web	NGINX Ingress Control has been updated to the latest version.
	EKS has been updated to the latest version.

LANEXO™ System v1.2.1

Release Date: 08-May-2021

Resolved Issues

The following table detail the resolved issues in this release.

Bug Fixes

Feature	Description
Mobile App	Update of Android 11 causes NFC functionality crash when camera is used at the same time in some mobile phones (e.g. Samsung). This is fixed by executing non-parallel usage of Camera and NFC within the Mobile App.
	Latest App version number was not shown on V1.2.0 release. This has been fixed.
Consumables	SDS Online Link has a critical bug which needs to be fixed. Deactivating this function until the fix is rolled out in V1.2.2.

Note

No update of Android App on your mobile device needed for this release.

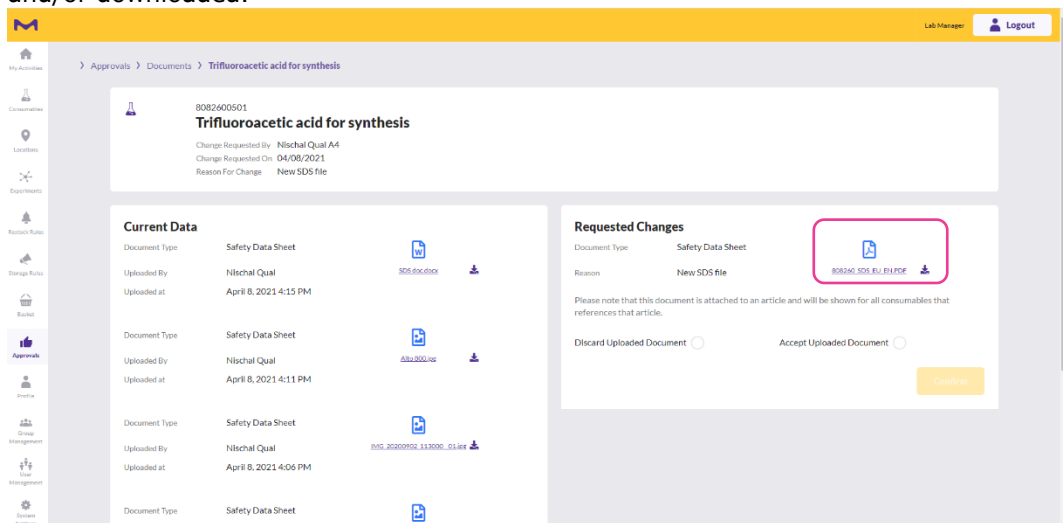# LANEXO™ System v1.2.0

Release Date: 01-May-2021

Resolved Issues

The following tables detail the improvements, resolved issues such as bug fixes and security fixes in this release.
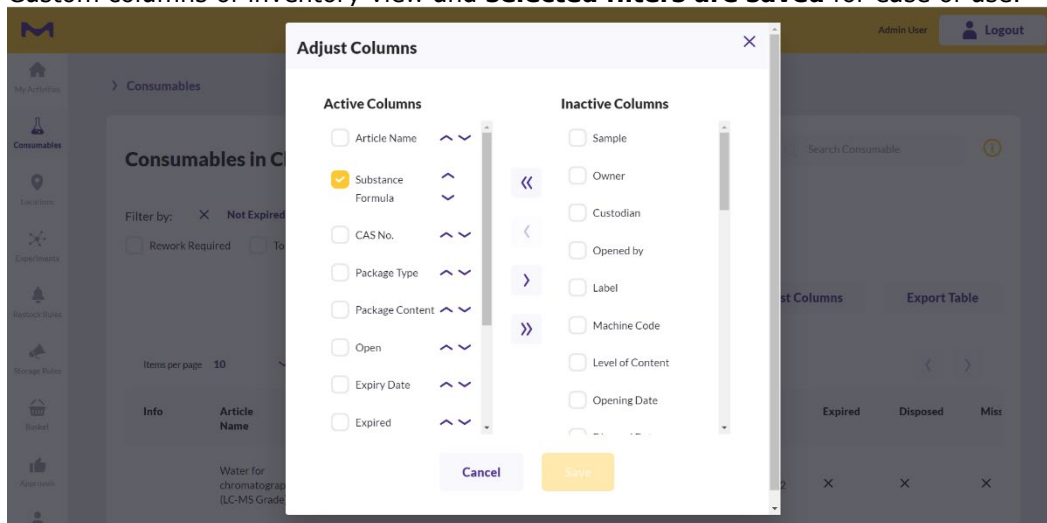
Improvements

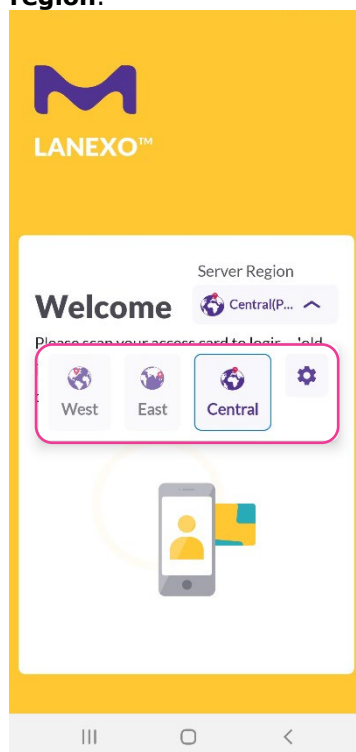| Feature	Description
Consumables	During the **Approval process**, the documents uploaded to an article can be viewed and/or downloaded.
	Custom columns of inventory view and **selected filters are saved** for ease of use.
	Safety Data Sheets **(SDS)** for **Merck and Sigma Aldrich articles** made available by providing a **link** to the webpage. *Note: The Merck articles must have the right GTIN number to fetch the correct SDS online.*
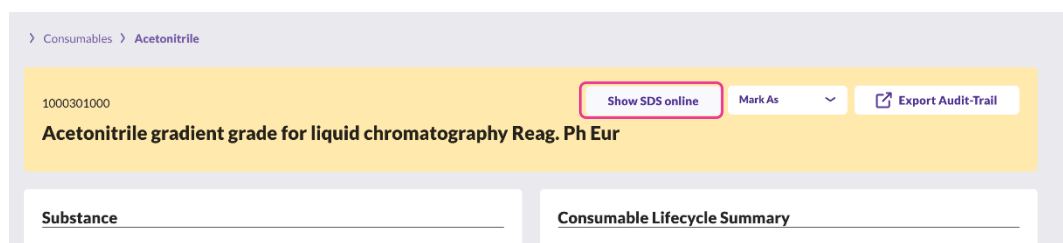
Backend	Full data set of Merck and Sigma Aldrich articles are available during registration.
	AWS server accounts made available for Singapore and the US (in-addition to the existing server in Europe). *Note: Customers need to select the AWS hosting location at the beginning of account set-up.*
	Mobile App has been adapted to access the various new and existing **AWS server region**.
	Privacy policy and imprint has been updated. The new Web App URLs with the updated privacy policy and imprint, • Imprint - https://lanexo.com/imprint • Terms of Use - https://lanexo.com/tos • Privacy Policy - https://lanexo.com/privacy Mobile App now shows each button to access Imprint, Privacy Policy and Terms of Use.

Bug Fixes

Feature	Description
Administration	Users with Location Manager only role couldn't open the Experiment menu in the Web App. This has been resolved.
	Users logged in into the Web App after their change of roles, saw an error page on the activities screen; this has been fixed.
	User was not able to login into the Web App without having the Device Manager role, even after a device manager activated the device. This has been fixed.
Audit Trail	When the user clicks on Edit Experiment button in Web App, it created change activity log without any changes being made by the user. This has been resolved.
	In Location menu in Web App, when the user does not edit any of the fields and clicked on Save button then Activity log is generated. This has been resolved.
	Change in User Role was not displayed in My Activity. This has been fixed.
Consumables	During the registration process of a material, the mix up batch number and article number from the data pulled has been fixed.
	Added package size as additional information to the article selection as some vendors had multiple entries for the same article number.
	An assigned consumable label in one account is not identified when it is scanned in another account, instead new consumable registration screen appears. This issue has been fixed.
Experiments	When adding consumables to an Experiment in Web App, the internal ID of the consumable is shown and not the unique RFID label number. This has been resolved.
Locations	After changing one location type to another in Web App, the linked consumables in that location shows both old and new location type. This has been resolved.
	In the German Web App, the 'Location type' field of the Storage Location showed 'Kategorie' instead of 'Standortart'. This has been fixed.
	A Position Label creates location duplication if it is used in another account on the same system. This issue has been fixed.

Security Fixes

Feature	Description
Web	Misconfigured Cache directives have been fixed.
	Missing response headers have been fixed.

Note for regulated customers

With the changes on the software, the validation status of the Application needs to be reestablished by the user.
Please reach out to us at LANEXO@merckgroup.com to receive the IQ/OQ documentation for your validation analysis.

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LANEXO™ System v1.1.1

Release Date: 21-December-2020

Resolved Issues

The following table details the resolved issues in this release.

Bug Fixes

Feature	Description
Mobile App	Fixed the issue that users searching for a consumable in the consumable list would see double entries for the same consumable.
Mobile App	Fixed the issue that location filters in the consumable list hide consumables with the flag "Reordered".

LANEXO™ System v1.1.0

Release Date: 11-December-2020

Resolved Issues
The following tables detail the improvements, resolved issues such as bug fixes and security fixes in this release.

Improvements

Feature	Description
Administration	The Web App allowed removing all Device Managers from the system. The issue has been resolved, and the last Device Manager cannot be removed anymore.
	The Web App allowed removing all LANEXO™ Admins from the system. The issue has been resolved, and the last LANEXO™ Admin cannot be removed anymore.
	LANEXO™ Admin could possibly remove their role by mistake in the Web App. It has been fixed and LANEXO™ Admins cannot remove the role from themselves anymore.
Basket	German translation "Bitte geben Sie die Mindesthaltbarkeit dieser Consumables an:" was replaced with "Bitte geben Sie die minimalen Tage bis zum Ablauf des Mindesthaltbarkeitsdatums an:"
Consumables	Consumables without an assigned location, indicate this now by showing "???"
	Harmonized the order of the fields between Web App and Mobile App.
	The article field "GTIN" has been renamed to "barcode number" in the Web App to harmonize it with the Mobile App.
	The field "Machine code" has been renamed to "Further information" to indicate its free text character to be used for entering additional details by the user.
	Field "Consumable Expiry date" has been renamed to "Expiry date".
	The button "Beenden" in the German version of the Mobile App has been renamed to "Registrierung abschließen" to indicate the process better.
	The status of the Smart Seal Label is now always shown regardless of if the label has been broken or not. The Identifier Labels never show a status as they cannot be broken.
	Added missing German translations for hazard statements.
	Substance data is now editable even if no substance was previously found.
Locations	Changed field name "Category" to "Location type" in the Web App.
	Reordered location types in descending order (large to small storage location type).
	During the creation of a new location, the scanned Position Label is now indicated at the top of the screen.
Backend	The App can now send emails from a system specific email address. The productive environment will always use noreply@prod.lanexo.com.
	Updated SPF records so that LANEXO™ System emails are not treated as Spam.

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Bug Fixes

Feature	Description
Administration	The Mobile App did not show the license texts of the used libraries. This has been fixed.
Audit Trail	Exported files did contain technical timestamps instead of human readable formats. This has been corrected. The used format now is MM-DD-YYYY HH24:MI:SS TZ.
Basket	Email sent by LANEXO™ System did not indicate the time zone that corresponds to the given date. This information has been added.
Consumables	During the creation of consumables, the CAS number was not stored if the corresponding substance was unknown to the system. This has been fixed.
	Consumable registration failed if an expiry date far in the future has been chosen. This is now fixed.
	The fill level fields were missing in the Mobile App, this has been fixed.
	Some flags were not indicated in the consumables list view, this has been corrected.
Experiments	An Experiment Manager was not able to assign Experiments to other users if they only have the Experiment Manager role. This has been corrected.
Locations	The locations did not show the assigned Location Label ID number on the Mobile App, this has been fixed.
	The German translation of the location types were missing, they have been added.

Security Fixes

Feature	Description
Web	A vulnerability regarding clickjacking has been fixed.
	A vulnerability exposing the web server and PHP version has been fixed.
	Updated web server and PHP to latest release.
	A setting allowed to investigate application errors giving away crucial information about the backend structure. This is now prevented.
	A vulnerability regarding the LANEXO™ System backend API has been fixed.

Note for regulated customers

With the changes on the software, the validation status of the Application needs to be reestablished by the user. Please reach out to us at LANEXO@merckgroup.com to receive the IQ/OQ documentation for your validation analysis.

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LANEXO™ System v1.0.3

Release Date: 25-November-2020

Resolved Issues

The following table detail the resolved issues in this release.

Security Fixes

Feature	Description
Mobile App	The secure sockets layer (SSL) certification of the Application firewall has been updated.

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LANEXO™ System v1.0.2

Release Date: 21-October-2020

Resolved Issues

The following table detail the resolved issues in this release.

Bug Fixes

Feature	Description
Consumables	The consumable detail changes in the system could be duplicated in-case of using the same substance, article or batch in another account. This bug has been fixed.

Note

No update of Android App on your mobile device needed for this release.

LANEXO™ System v1.0.1

Release Date: 30-June-2020

Resolved Issues

The following table detail the resolved issues in this release.

Bug Fixes

Feature	Description
Experiments	Viewing and exporting experiments did not show the data of Consumables during the end of the execution. Instead they showed the most recent Consumable data. This bug was corrected.

LANEXO™ System v1.0.0

Release Date: 01-May-2020

LANEXO™ System is an inventory, safety and compliance management system for chemicals, reagents and consumables in the laboratory.

It includes Mobile App and Web App, LANEXO™ Position Labels for locations, LANEXO™ Identifier Labels and LANEXO™ Smart Seal Labels for the manageable vendor-neutral items, and LANEXO™ Access Cards for each user.

The cloud-based system can be easily set up and rapidly integrated into existing lab workflows in highly regulated analytical and research labs.

Software Features

Features	Mobile App	Web App
App Access	• Login by access card • User timeline • User profile access	• Login authentication from Android App • View and export User timeline audit trail • User profile access • System settings for security and user session
Consumables	• Register product, self-made, sample • Attach SDS, CoA, Specification to consumable • View & edit consumable data • Flag consumable as rework, expired, restock & disposed	• View & edit consumable (product, self-made & sample) data • Flag consumable as rework, expired, restock, disposed or open • Export consumable audit trail
Inventory	• Inventory count to synchronize Physical & digital stock • Search or list consumables in inventory • Filter consumables according to location	• Set Restock Rules with min. threshold stock level & user to be alerted • Search or list consumables in inventory • Filter consumables according to location
Location	• Register storage location • Relocate consumable • Search and view location details	• View & edit storage location • Modify tree structure • Export location audit trails • Create and assign storage compliance rules for location • Assign user/user groups to be notified in-case of storage incompatibility
Experiment	• Create and perform an assigned experiment • Scan inputs & generate output consumables • Search & list experiments	• Create and assign experiment to User • Search & list experiments • Export experiments list
Management		• Create & edit user groups • Assign & remove user roles • Approval process for consumable details & user registration
Basket		• Export reorder list for replenishment
Language	English and German	

Hardware Features

LANEXO™ Items	Description
Welcome Letter	• Serial Number located on the Welcome Letter is your customer Account Number.
Access Cards	• Access card is linked to each individual user registered in the system. • User authentication & login into the Mobile App. • Unique digital signature to each user
Position Labels	• Manage and track the storage locations of the consumables in the lab.
Smart Seal Labels	• Smart Seal Label with tamper-proof tracks the opening date of consumable. • System calculates the new expiry date of consumable after the first opening event. • Ideal for the purchased off-the-shelf chemicals from any supplier.
Identifier Labels	• Identifier Label without tamperproof/opening detection option. • Ideal for in-house prepared reagents/buffers and samples which do not require first-time-opening detection.

System Requirements

System	Requirements
Mobile Devices	• Android version 8.0 or higher • Near Field Communication (NFC) capable • Display resolution 720p or higher • Display resolution between 4.5" and 12.0"
Computer/Notebook	• *OS:* Windows 7 or higher, Mac OS X 10.8 (Mountain Lion) or higher, Linux or Ubuntu, Google Chrome OS. • *Web Browser:* Mozilla Firefox, Google Chrome and Internet Explorer 11.
Internet Connection	• 1 Mbps or better (broadband recommended), 3G connection or better (WiFi recommended).

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Customer Support

In case of technical questions, please reach out to us at LANEXO@merckgroup.com.

Below find the customer support contact details:

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