

Laboperator v3.16.0

Changelog

2022-03-24



# Changelog

v3.16.0 - 2022-03-24

#### Added

• [Workflows] Provide quick access to previously recorded updates with change reasons from workflow fields within workflows

## Changed

• [Workflows] Change reasons is no longer required on the first update of workflow field, regardless if the field have default value or not

#### **Fixed**

- [Administration] Fix issue where authorized users are not able to do certain action to resources under collections
- [Workflows] Fix flickering issue on workflow table where "invalid table" warning shows up when the table data is still being loaded
- [Workflows] Fix issue with duplicated step number within workflow runs

v3.15.0 - 2022-03-10

#### Added

- [Audit Trail] When configured, the Audit Trail can now be exported into PDF, XLS, and JSON
- [Administration] Part 2 of 3 of the Role-Based Access Control (RBAC) system for handling user permissions, which will be fully implemented with the release of Laboperator v4.0.0. This will replace existing Access-Control List (ACL) system, and will enable administrators fine grain control over user access and permissions. This part of the release includes authorization of resources under collections, which includes Connectors, Devices, Exports, Measurements, Samples, and Workflows. To assist with the migration, existing ACL authorization is still being respected but is put in read-only mode. As part of the changes, the concept of ownership of resources is also being retired, such that user will no longer have dedicated personal collections.
- [Workflows] Improve UX on entering values in Workflow Fields. When entering string or number values, user input will only be persisted when the user committed the changes,



either by pressing enter, or leaving the field. Users are also given the option to clear the changes.

- [Devices] Initiator+ from Biotage: new device (driver-biotage-initiator v1.0.0).
- [Devices] Generic Barcode Scanner (HID) from labforward GmbH: new device (driver-barcode-hid v1.5.0).
- [Devices] Generic Webcam from labforward GmbH: new device (driver-webcam v3.1.0).

#### **Fixed**

- [API] Handle pagination out of bound
- [Workflows] Fix issue unclosable alert dialog

v3.14.0 - 2022-02-17

#### Added

- [API] Add new API v2 endpoint to fetch and exports data points
- [Administration] Part 1 of 3 of the Role-Based Access Control (RBAC) system for handling user permissions, which will be fully implemented with the release of Laboperator v4.0.0. This will replace the existing Access-Control List (ACL) system, and will enable administrators fine grain control over user access and permissions. This part of the release includes authorization of administrative actions, webhook subscriptions, and notification settings via RBAC. Existing ACL administrators are automatically migrated.

#### Fixed

- [Collections] Fix "All Collections" showing unintentionally in the main menu
- [Workflows] Fix memory leak in some background worker related to workflow processing
- [Workflows] Fix the workflow HASH function when given array with odd number of items

v3.13.1 - 2022-02-03

#### Added

- [Devices] XP from Mettler Toledo: new device (driver-sicsserial v2.4.0).
- [Devices] XSR (RS232) from Mettler Toledo: new device (driver-sicsserial v2.4.0).
- [Devices] SevenEasy S20 from Mettler Toledo: new device (driver-mt-sevencompact v1.3.0).
- [Devices] WNE29 from Memmert: new device (driver-memmert-waterbath v1.0.0).
- [Devices] RCT digital (Dual-Operation) from IKA: new device (driver-ika-rctdigital v5.1.0).



• [Devices] Kevin from Fraunhofer IPA: use latest SiLA definition (driver-sila v1.2.2).

### **Fixed**

- [Workflows] Fix file upload on workflow field of type file
- [Workflows] Fix disabled submit button on the change reason form when user previously cancelled an update
- [Workflows] Fix potential for double submission on confirmation dialog, e.g. when completing workflow run
- [Workflows] Add proper error handling for unit errors in workflow scripting

#### Added

- [Usability] A warning will be displayed when the user connection to the Laboperator server is not available, e.g. because of network issues.
- [Devices] Rheomat R180 from proRheo: new Zero Calibration command. (driver-prorheo-rheomat v1.1.0)

## Deprecated

• [API] The protocol rules APIv2 endpoints is deprecated without replacement, and will be removed with the upcoming release of Laboperator v4.0.0

#### **Fixed**

- [Workflows] Fix issue with OnScan behaviors being ignored in some cases
- [Workflows] Fix issue with the Workflow Run list inside the Workflow Template show page only displaying the first 20 runs related to the template.

#### Added

- [Devices] Allow users to review, and accept or reject updated dashboard layout received from dynamic devices
- [Devices] Rheomat R180 from proRheo: new device (driver-prorheo-rheomat v1.0.1)



- [Users] Allow system administrators to configure for automatic invalidation of user sessions after a certain period of inactivity. See details of configuration in the provided Administration Manual.
- [Workflows] Add support for TIMES function inside workflow scripting, which can be used for rudimentary looping for a predefined number of times.

• [Devices] RCT digital from IKA: Refactor implementation to use updated pattern with increased test coverage (driver-ika-rctdigital v5.0.0)

#### **Fixed**

- [Audit Trail] Improve performance of Audit Trail recording and reading resulted from inefficient use of database indexes.
- [Automations] Fix automation mistakenly triggered by unrelated resources even when the automation is defined to only listen to a specific resource with specific id.
- [Workflows] Fix errors raised when using the TIMES function in workflow scripting when the function is reading value from the execution context
- [Workflows] General performance improvement in workflow executions. In our test using relatively complex workflows, the time required to automatically create, execute and complete the workflows goes down from 200s to 50s.

#### Fixed

 [Devices] Fix issue with binding devices to virtual port in the upcoming release of Connector v4.0.0

#### Added

- [Audit Trail] Existing Activities page which displays recorded history of data changes is
  deprecated for an improved Audit Trail. The Audit Trail will be available by default in all
  installations as we removed the current Activities page with the next major release of
  Laboperator planned for mid-Q1 2022. For early access to the Audit Trail, Organization
  administrators would need to switch on the feature via Server Administration.
- [Organization] Add support for configuring the preferred display format of date and time.
- [Devices] SPOT from essentim GmbH: new device (driver-essentim-sphere v1.1.0).



- [Devices] Homogenizer from SmartLab Solutions: new device (driver-smartlab-homogenizer v1.0.0).
- [Devices] Stirring Hotplate 6 from 2mag: commands to control temperature limit and stirring power. (driver-2mag-stirring-hotplate v2.0.0).

- [Workflow] Fix display of fields stuck in loading state when opening the execution page of completed workflows.
- [Workflow] Fix issue with the popup for approving pending updates not clearing previously selected reasons for update.
- [Workflow] Various other bug fixes and performance improvement in workflow execution.
- [Devices] Stirring Hotplate 6 from 2mag: fix temperature setpoint (driver-2mag-stirring-hotplate v2.0.0).

#### Added

- [Devices] Sartorius Cubis MCE: new device (driver-sartorius-sbi v4.1.0).
- [Devices] System Health Monitor: new device (driver-system-health v1.0.0).

#### Fixed

- [API] Fix issue with getting API token via the OAuth 2.0 Refresh Token Flow.
- [Audit Trail] Improve performance of loading the audit trail (Activities) page when the number of recorded trails in the database is sufficiently large
- [Organisations] Fix issue with configured logo for the Organisation gets removed unintentionally during update of Organisation
- [Devices] Büchi R-300, R-200 pro, SyncorePlus: reverse level sensor flags (driver-buchi-openinterface v1.0.2).

#### Added

• [Devices] Support for dynamically defined Device drivers is now completed. In addition, when updating device drivers, users will now be notified in case the update will introduce



- changes in the list of data collected from the device (e.g. when support for certain channels are added/removed).
- [Devices] Mettler Toledo Balances: send stable weight to Laboperator when pressing the physical Print button (driver-sicsserial v2.3.0).
- [Devices] Inateck BCST-50, BCST-52: support for 1D/2D barcode scanners. (driver-barcode-hid v1.4.0).

- [Devices] Sartorius Cubis MSA, Cubis MSE: rename command `zeroOrTare` to `zero\_or\_tare` and new dashboard layout (driver-sartorius-sbi v4.0.0).
- [Devices] IKA RET control: new dashboard layout (driver-ika-retcontrol v2.0.0).

### **Fixed**

- [Devices] Sartorius Cubis MSA, Cubis MSE: improve stability and reliability (driver-sartorius-sbi v4.0.0).
- [Devices] IKA RET control: improve stability and reliability (driver-ika-retcontrol v2.0.0).
- [Devices] Büchi R-300, R-200 pro, SyncorePlus: fix bug that prevented driver from starting (driver-buchi-openinterface v1.0.1).

#### Added

• [Workflows] Add support for uploading files via the webhook action during workflow execution. The process is tested to be working when uploading files to either s3, or Labfolder, and we expect it to work similarly against any other json-based RESTful API.

## Changed

• [API] In preparation for the next major breaking changes for Laboperator v4.0.0, we have started to reorganize our APIv2 endpoints to be more RESTful and to allow finer control over endpoint authorization. Starting from this release, you'll see that some endpoints will respond with a deprecation header.

#### Fixed

- [Dashboards] Fix some elements in a device dashboard mistakenly disabled on the first page load even when the device is online.
- [Users] Fix missing logout link when logged in user does not belong to any organization.



• [Deployment] Fix an issue in uploading the release bundle of v3.8.0. The issue is not user facing.

### Added

- [API] The API endpoints now support filtering values of attributes of type "array"
- [Secrets] Allow adding Workflow Step with additional request for access to Secrets
- [Secrets] Allow additional approval for use of personal secrets when Workflow Run are shared between different members of the same organization

### **Fixed**

• [Workflows] Fix table selection in workflow, which was partially broken with v3.6.0 release.

## Changed

• [Device Drivers] Change the way drivers are distributed together with the release bundle to prepare for adding support for dynamically defined devices.

#### Fixed

- [Workflows] Correctly disable some control buttons where clicking them will lead to invalid requests.
- [Workflows] Fix support for storing integer results in a field of type "script".



v3.7.0 - 2021-09-16

#### Added

- [Secrets] Introduce a secure way for users and organisations to record sensitive data,
  e.g. usernames and passwords, in the form of encrypted Secrets. Workflow designers
  can configure Workflows to request access to both users and organisations secrets.
  These requests for access would need to respectively be approved by the users and
  organisation administrations. This feature is currently considered in BETA access and
  has to be explicitly enabled by your organisation administrator.
- [Workflows] Add support for storing temporary values that will be available for scripting
  and interpolation during a single chain of actions. You can use this, for example, to
  temporarily store a calculated value, which can then be referred to as part of subsequent
  calculations.

#### **Fixed**

- [Navigation] Fixed display of ellipsis in long text in menu items
- [Workflows] Fixed occasional StaleObjectError triggered when workflow behaviors are configured to do multiple updates to fields and steps in a single action

#### Fixed

- [Workflows] Fixed outdated reference to field mapping when workflow step are mapped to global field using interpolated reference
- [Workflows] Fixed behavior of setting multiple fields in response to scanning a barcode, on which all of the fields will be updated to the scanned barcode value, regardless of how the behaviors are configured

#### Added

• [Workflows] Workflow designers can now choose to display labels alongside Dashboard elements inside workflow.



• [Workflows] Our markdown parser is updated to more closely follow the CommonMark specification.

#### **Fixed**

- [Devices] Fix issue which prohibits binding devices to virtual ports on newer Connector versions.
- [Workflows] Fix some errors related to mapped fields.

## Changed

 [Workflows] During substep navigation, the next active substep will automatically be scrolled into view. This is to improve the UX of Workflow execution, by making it clearer on what the user needs to do next.

### **Fixed**

- [Devices] The device settings page can previously be opened by directly accessing the
  URL by users who do not have sufficient access to the device. When this happens, the
  users will see a blank page, so there is no data being leaked. With this release, users will
  now correctly see an error page indicating that the user does not have access to the
  device.
- [Workflows] Fix performance degradation on script evaluation introduced by v3.5.0 release.
- [Workflows] Context info panel sometimes shows empty content when navigating between steps.
- [Workflows] Various UI/UX improvements on selectors

#### Added

 [Workflows] Scripts can now use template schema version v1.0.1, which introduces a new way to access relationship attributes in scripts. Relationships are now accessible in their serialized form as documented in the API v2 documentation. This enables access to their attributes (i.e. a device's vendor via myDevice.attributes.vendor).



- [Workflows] The new 'NOW()' function can be used in scripts to return the current time and date. It can be stored in a field and can be compared to other timestamps.
- [Workflows] In the notify action it is now possible to access the signal context allowing you to interpolate context objects into the message. This gives you access to everything from request error messages to relationship attributes.
- [Device Type] A new driver for the Sartorius MA 100C, a moisture analyzer, was released.

- [Workflows] When viewing completing steps of a workflow run the completed substeps are now expanded by default giving you faster access when reviewing what has been done and safing you some clicks along the way.
- [Devices] The wording for messages showing when a new driver version is available for a device has been updated to be informative.
- [Device Types] With this release all drivers received a new version that includes technical changes in preparation of features coming up in the near future. The driver updates do not affect the driver functionality in any way.

#### Fixed

- [Activities] A problem on the activities page where the export tab was shown instead of the filter tab after a very specific chain of actions is resolved.
- [Workflows] In some cases, mostly related to timers, it was possible that workflow actions were executed after the workflow was paused or completed. This is now no longer possible.
- [Workflows] Repeating a step and going back to a previous substep is now disabled when the first substep is active.
- [Workflows] When reviewing skipped substeps they are now faded and can be expanded or collapsed like other completed substeps.
- [Dashboards] Improvements when displaying long measurements that caused long loading times and in some cases timeouts.

## v3.4.1 - 2021-07-06

## Changed

- [Dashboards] When adding Gauge and Gauge Control elements into a dashboard, the respective min/max value will now be automatically populated from the min/max value defined by the related device's channel
- [Workflows] Minor UX change in the Change Reason modal on which the field value will show up above the reason.



- [Collections] Minor bug fixes and UX improvements
- [Workflows] Timer which are started in one substep can now trigger completion event in subsequent steps and substeps
- [Workflows] Performance improvement when creating workflow runs with a lot of fields

#### Added

- [Audit Trails] Enable exports of the audit trails into csv/pdf/xlsx format. This feature depends on the report engine module which will be generally available soon. For on-premise installation, contact us for support if you want to have access before it is generally available.
- [Collections] Allow filtering collection resources by role. This can be useful when reviewing the roles and rights granted to members of the organization.
- [Workflows] Add new updateResource action which can be used to update related resources from within a running workflow. For now, this action is limited to updating the title of the running workflow.

### Changed

- [Collections] Improve accessibility of various status indicators.
- [Audit Trails] Change format of date time picker to be more GxP compliance.

#### Fixed

- [Notifications] Fix delivery of notifications via email
- [Users] Fix redirect after user sign in via SSO. Users will now correctly be redirected to the page they were trying to access before the authentication.
- [Webhooks] Fix display of headers when editing webhook subscriptions
- [Workflows] Fix potentially data lost when updating workflow tables in very quick succession under a slow network.

#### **Fixed**

• [Collections] Fix page freezing on certain resource navigation.



v3.3.0 - 2021-06-10

#### Added

- [Collections] Organisation administrators will now be able to navigate to resources that other members have access to.
- [Collections] Provide ways for users to review their roles across multiple resources

#### **Fixed**

• [Audit Trails] [Workflows] Fix invalid translations and missing validation messages.

### Added

• [Audit Trail] Add support for filtering based on time range and increase the allowed page size

## Changed

- [Exports] Export to network storage is now deprecated and will be removed with the next major release. The corresponding feature flag within the organization setting is now frozen.
- [Workflows] Actions which are triggered in short succession during a workflow run will now deterministically be resolved in the sequence of when the action is triggered. Which should considerably improve the experience of working with complicated workflows

#### **Fixed**

- [Devices] Fix broken file upload on data point for certain file types
- [Workflows] Fix support for reordering upcoming steps

#### Fixed

• [Audit Trail] Various bug fixes related to entry display



- [Dashboards] Fix display when some SI units is used by the device
- [Devices] Fix device setting page not showing when the device name contains Unicode characters
- [Workflows] Various bug fixes related to timer behaviors

v3.1.0 - 2021-04-29

### Added

• [Audit Trail] Improve UI/UX for discovering and filtering related application events

#### **Fixed**

- [Devices] Various bug fixes and performance improvements
- [Workflows] Various bug fixes and performance improvements

v3.0.1 - 2021-04-15

#### **Fixed**

- [Collections] Organisation admin can now correctly archive all resources within the organisation.
- [Workflows] In some cases, updates to fields which should have required change reason were accepted even when the change reason is missing. Such updates will be rejected as expected
- [Workflows] Scan pattern for each steps and substeps are now correctly detected as workflow executor progress to the steps
- [Workflows] Various other bug fixes and performance improvements

v3.0.0 - 2021-04-01

#### Added

[Versions] UI/UX improvement on activities display

### Changed

[Audit Trail] The Activities page is revamped with UI/UX improvements.



- [Connector][Dashboards] Improve rendering performance of some elements
- [Workflows] Fix various UI eligibility issue

### Removed

- [Job] Jobs and Tasks feature are removed
- [Deployment & Maintenance] Subdomain-based tenant strategy is removed in favour of route-based tenant strategy