

## MET ONE 3400+ Software Package Release Notes

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### Version: 1.0.32

**Production Release Date: November 2022**

**Includes fixes for these defects:**

1. Add new database and migrate all functionality.
  - Includes but not limited to migration of calibration, machine groups, SOPs, SOP alarm response, printers, calibration settings, instrument settings, LDAP settings, events, audit records, user functions, etc.
2. Create migration system for old database to new database.
3. Improve database encryption.
4. Add a system for configurable settings caching to prevent excessive writes to database.
5. Set print process in database to only be running when printing jobs.
6. Fix and enable Japanese language onscreen keyboard.
7. Fix and enable Chinese language onscreen keyboard.
8. Add TLS 1.2 to 1.3 switching capability to device.
  - Set user interface to use TLS 1.2.
  - Change default migration TLS to 1.3.
  - Add TLS maxVersion to server.
9. Add warning message about user replication to machine group join form.
10. Remove reboot after leaving a machine group.
11. Add current device as status to machine group list.
12. Fix to join machine group spinner.
13. Make user settings shared in machine group.
14. Create new replication system for machine groups.
15. Modify machine group page with additional data.
16. Update user login for duplicates within machine group.
17. Fix to enable deletion of a location.
18. Replicate log table with functions.
19. Fix various replication issues.
20. Fix for ISO report not generating.
21. Update users page to display instrument ID where that user was created.

22. Fix reset password modal spinner.
23. Modify user list style for more compact viewing.
24. Fix issue where sample start time is incorrect.
25. Improve sample query performance.
26. Fix sample run state issue.
27. Add minimum sample time of 30s.
28. Reduce data writes to 30s interval for sample updates.
29. Add to migration to set minimum sample time to 30s.
30. Create new user management related APIs.
31. Add Suzhou to check for A2LA certified calibration labs.

## Version: 1.0.18

**Internal Release Date: June 2022**

**Includes fixes for these defects:**

1. Alarm response submission removes all stacked alarms.
  - a. Fix to prevent all alarms from disappearing when one alarm is acknowledged.
2. Truncating User-Defined Fields.
  - a. Fix to truncate long text to preserve formatting when editing the SOP.
3. The date range filter not showing the latest sample timestamp in the tickertape.
  - a. Fix to make the latest sample time stamp appear in the tickertape without first needing to reload screen or power cycle device.
4. Copies fields allows decimal value.
  - a. Fix to only allow whole numbers in print pop up.
5. PDF Export spinner stops spinning before report is complete.
  - a. Fixes an issue where the in-progress spinner would disappear before a PDF has been fully exported.
6. Formatting issues with Continuous Monitoring report on internal printer.
  - a. Change the display of samples run in continuous mode on tickertape printout.
7. SOP/Sampling Reports: Allow instruments to display all channels saved to an SOP.
8. User Defined fields do not appear in the Routine Monitoring Reports but do appear in the Samples export.
  - a. Change to have both exports include the user defined fields.
9. Invalid threshold range for Analog Flow Rate Alarm fixed.
10. Leading and trailing spaces cause multiple users with the same ID to be allowed to be created.
  - a. Fix implemented to omit leading and trailing spaces.
11. Add information to sampling printout: sampling instructions and external ID.
  - a. If an SOP is run that contains sample instructions and an external ID, both the instructions and ID will now appear in the reports (EU GMP, ISO 14644, routine monitoring) and real time printout.
12. Not all alarms are exported to Excel for a Routine Monitoring report.
  - a. Fixes an issue where particle count and temperature alarms would not appear correctly on routine monitoring reports.
13. Error is not displayed for the manual sample Hold time field when it is left undefined.
  - a. Now, an error message appears if sample hold time is left blank.
14. Inconsistencies in Audit Trail with Continuous Sampling.
  - a. Fixed issue leading to inconsistencies in audit trail during continuous sampling.
15. Aborted sample is not displayed in the tickertape.

- a. Fix to display all aborted samples in the tickertape.
- 16. Users can be deleted and recreated with same user ID.
  - a. Fix to prevent a username and/or display name from being re-used after a user has been deleted.
- 17. Software overrides Differential selection.
  - a. Fix preventing software override of differential selection.
- 18. User Password Change entry in the Audit Trail displays the user's login ID instead of display name.
  - a. Fix to the identifier used in the audit trail when user password is changed.
- 19. Add ft<sup>3</sup> and m<sup>3</sup> to units dropdown along with English and metric.
  - a. The units dropdown selection now includes m<sup>3</sup> and ft<sup>3</sup>.
- 20. Overflow on some settings buttons when German is selected.
  - a. Settings headers fit correctly when selecting German language.
- 21. Pump is showing low flow rate.
  - a. Fix to a low flow rate display error that impacts 1% of users in v1.017 and earlier.
- 22. Add new language to calibration certificate.
  - a. Adds additional required text to calibration certs as required by some standards

**Version: 1.0.17**

**Production Release Date: February 2022**

**Includes fixes for these defects:**

1. Pressure sensor in instrument to be replaced.
  - Software modified to run the replacement pressure sensor in the MET ONE 3400+.

## **Version: 1.0.16**

**Production Release Date: October 2021**

### **Includes fixes for these defects:**

1. Sample Records = "Limit To" 10 filter not working.
  - Fixes an issue where the limit to filter does not work on sample reports page.
2. USB export broken.
  - Fixes an issue where documents could not be exported to USB drives.
3. Missing Sample data.
  - Fixes an issue where sample data would not be saved.
4. Software needs ability to switch between FPGA drivers based on what pressure sensor is installed.
  - Adds functionality to handle multiple drivers for internal FPGA.
5. Download error when saving to USB when device is set to Chinese language.
  - Fixes issue where documents could not be saved when language was set to Asian languages.
6. Acknowledging an Alarm while Unit is running.
  - Fixes an issue where a user could not acknowledge an alarm for an SOP sample.
7. User defined fields at location level are not triggered when the sample was started.
  - Fixes an issue where user defined fields would not be triggered when sampling a location in an SOP.
8. Changing from metric to English units causes a problem with temperature alarms.
  - Fixes an issue where changing units while sampling would cause issues with temperature alarms.
9. Remote browser does not find recent samples in reports view without refresh.
  - Fixes an issue where the reports screen would not notify the user that new samples had been saved while sampling.
10. Negative countdown on SOP Sampling.
  - Fixes an issue where the countdown timer could go negative.
11. Issues with generating Sample Report.
  - Fixes issues where a sample report would fail to save.
12. Add Suzhou lab name and address on calibration report.
  - Adds ability to enter and display lab name and address on the calibration report.
13. For Suzhou factory calibration report only, the calibration report signature area to add one more signature area for authorizing person sign off.
  - Add additional signature area to calibration report.
14. SOPs read call is limited to 25 results.
  - Fixes issue where the SOP dashboard would display a maximum of only 25 SOPs.

15. Audit log cannot be read properly if undefined on audit log page (Audit trail page not rendering).
  - Fixes issue where audit log page would crash and show an error.
16. Error message: "Cannot use in operator to search for maxdate in undefined" on reports page.
  - Fixes issue where reports page would crash and show an error.
17. A device that requires recalibration cannot sample from the sample configurations page.
  - Fixes issue where device is unable to configure manual sampling while the device has an expired calibration.
18. Password reset page has missing translation.
  - Fixes translation of label on password reset page.
19. Audit trail translation missing for filters.
  - Fixes translation of label for filters on audit trail page.
20. Sample reports translation missing for filters.
  - Fixes translation of label for filters on reports page.
21. Event log reports translation missing for filters.
  - Fixes translation of label for filters on event log page.
22. A2LA Logo on certification missing ID number.
  - Adds cert number to A2LA logo that appears on calibration certificates.
23. Touchscreen Slowness.
  - Improves general performance throughout device regarding slow touch response.
24. Performance Improvements.
  - Improves overall speed performance of the device.
25. Sample PDF not exporting to USB.
  - Fixes an issue where the sample report PDF would not export to USB.
26. Timing incorrect on the counter.
  - Fixes an incorrect timing on the sampling counter.
27. Tickertape (thermal print) not matching PDF printout.
  - Fixes issue where data would not match between the tickertape and PDF reports.
28. File name distorted in Japanese.
  - Fixes an issue where filenames do not have correct font when language was set to Japanese.
29. Excel report filename does not match up to PDF and TSV.
  - Fixes filename differences when exporting PDF and TSV formats.
30. Resetting a user password with a temporary password does not generate an audit record.
  - Adds an audit trail item for resetting a temporary password.
31. Page refresh is needed to show the updated calibration equipment list.
  - Fixes an issue where the equipment list in calibration would not show newly added equipment.

32. Ensure tickertape volume is limited to 3 decimal places.
  - Limits tickertape volume to 3 decimal places.
33. SOP, Building, and Location pages erroneously state that channel selections can be overridden in the SOP children locations.
  - Fixes an issue where the SOPs state that the channel selection can be overridden by locations.
34. Page refresh is needed to show the updated calibration PSL standards list.
  - Fixes an issue where the PSL list in calibration would not show newly added sizes.
35. Audit Trail for 3400+ inconsistency updates.
  - Fixes an issue where when a device loses power during sampling a recording would not be saved to the audit trail indicating a sample failed to complete.
36. Upgraded system libraries and server to support newer improvements in secure web communication using TLS 1.3.
  - Addresses why VA is still flagging the application for having old TLS versions.
37. Onboard keyboard support for Chinese character input.
  - Fixed an issue where the onscreen keyboard would not allow Chinese character input.
38. Routing Monitoring report export in Excel format missing fields: S/N and device ID.
  - Fixes issue where S/N and device ID were not present on routine monitoring reports when exporting in the Excel format.
39. Routing Monitoring report export in TSV format was missing fields: S/N and device ID.
  - Fixes issue where S/N and device ID were not present on routine monitoring reports when exporting in the TSV format.
40. Audit trail not tracking events.
  - Fixes an issue where the audit trail filter for action types would not work correctly for some types.
41. Added device filter to audit trail.
  - Adds a filter to the audit trail to filter based on device in a machine group.



## **Version: 1.0.13**

**Production Release Date: March 2021**

**Includes fixes for these defects:**

1. Fixed onboard help document for English and translated versions (English, German, Spanish, French, Italian, Japanese, Korean, Portuguese, Russian, Chinese Simplified, Chinese Traditional).
  - Adds information to show that the export of the audit trail can be exported in PDF format in translated help file.
  - Adds information to show the SOP filter input for sample reports to translated help file.
  - Translation improvements to translated help files.

## **Version: 1.0.11**

**Production Release Date: February 2021**

**Includes fixes for these defects:**

1. Add instrument specific message to ISO17025 Calibration message.
  - Added message of “The results in this report relate only to the instrument calibrated or tested.” to ISO17025 calibration certificates.
2. Export Audit Trail - Secure PDF.
  - Adds ability to export audit trail in secure PDF format.
3. USB Export Issues – Continued.
  - Addresses issues with exporting documents to external hard drives.
4. Samples not recorded when power removed.
  - Saves incomplete samples when all power is removed.
5. Comments not exported / reported.
  - Fixes issue where comments would not appear on reports or tickertape exports.
6. Incorrect Sample Times.
  - Fixes an inconsistency with sample times.
7. Alarm Threshold Field Limits Too Narrow.
  - Fixes an issue where alarm threshold amount maximum was too low for SOPs.
8. Chinese Translation Change Requests.
  - Implemented a large amount of translation corrections for the Chinese language.
9. When running more than one sample, user defined fields are prompted only one time.
  - Fixed an issue where an SOP sample that had multiple user defined fields that prompts response would prompt only once.
10. Unable to connect to a unit over wired connection while the Wi-Fi was connected.
  - Ensured that last connection made takes priority. If Wi-Fi is connected after ethernet, the device will make that the default connection.
11. Difficulty When Changing Number of Copies for Printing.
  - Fixed copy number input field for printing.
12. User defined field triggers even though it is turned off at the location level.
  - Fixed an issue where an SOP would not respect the location setting to override if a user defined field should not trigger.
13. Timestamp in Reports/Samples, Audit, Event log sometimes does not match timestamp in export.
  - Fixed an issue where timestamps would be off on exporting different documents.
14. Export Audit Trail - Select type of export.
  - Added export type selection for audit trail to enable PDF export.

15. Incorrect default file name when exporting a generated sample report.
  - Fixes filename to be match document name when exporting sample report.
16. Allowed to enter non-unique user defined field names.
  - Makes it so that SOP user defined fields must have a unique name.
17. SOP does not retain Volume setting & SOP duplication does not copy unit of measure.
  - Fixes an issue where buildings and locations in an SOP would not respect the unit of measure choice of the parent SOP. Also fixes an issue where duplicated SOPs would not copy over the previous SOP's unit of measure choice.
18. Remove reduce in "sopLocationsWithSamples."
  - Implemented performance improvements for the SOP dashboard page.
19. Poor search performance as number of samples grows.
  - Implemented performance improvements for sample reports when the device has a large amount of samples.
20. Optimize OS boot time - debugging and further optimize.
  - Improved boot time of the device.
21. Enable error logs in couchdb.
  - Added for improved database debugging.
22. Diagnostic page status for air pump and Wi-Fi do not display a change unless forcing a screen reload.
  - Fixed an issue where air pump and Wi-Fi status do not change without refresh on the diagnostics page.
23. Missing Items from the Audit trail.
  - Added result and reason if a failure occurred to sampling audit record.
  - Added audit event for cancelled sample.
  - Added alarms to sample record.
  - Improved SOP audit record with what its state was changed to.
24. Change users to mango.
  - Implemented performance improvements to the user's page and records.
25. Change "releasedRevisions" to mango.
  - Implemented further performance improvements to SOPs.
26. Look into removal of nested for loops in locations view.
  - Implemented performance improvements that should reduce loading time of SOP dashboard and the expanding of locations and buildings.
27. Set "query\_server\_config" to 2.
  - Implemented database wide performance improvement that should assist with machine group replication speed.
28. Change Erlang cookie to unique value.
  - Implemented a security improvement for devices within a machine group.
29. Upgrade default.ini to couchDB 3.1.0.

- Implemented security and performance improvements to the database configuration.
30. Adjust compaction.
    - Implemented device wide performance improvement when dealing with large datasets and how the database compresses the records.
  31. Device on battery power not generating an audit record when shutting down.
    - Fixes an issue where a device on battery power would not generate an audit trail record when shutting down.
  32. Routine Monitoring report does not include device information.
    - Added created by, publish date, device name, and device serial number to the routine monitoring reports.
  33. Remove threshold limits from SOP alarms.
    - Removed maximum threshold limit for SOP alarms.
  34. Unable to turn pump on/off error during calibration.
    - Fixed an issue where the device could not turn the pump on or off during calibration.
  35. Replace “usersFilter.”
    - Implemented a performance improvement to the users database records.
  36. Add 1 more character to sensor serial number input.
    - Ensured the device would support different sensor serial number values.
  37. Cannot filter samples by SOP name.
    - Added ability to filter samples by SOP name on the reports page.
  38. Bug fix for Poor search performance as number of samples grows.
    - Improved performance of sample search on large datasets.
  39. Bug fix and testing Poor search performance as number of samples grows.
    - Improved performance of sample search on large datasets.
  40. Change “sampleAlarmResponses” to mango.
    - Improved performance of sample alarms.
  41. During calibration of the Channels errors are being displayed.
    - Fixed issue where an error was being thrown during channel calibration.
  42. No audit event when changing LDAP group mapping.
    - Added audit event when the group mappings for LDAP are changed.
  43. Change “sopLocationSamples” to mango.
    - Improved performance of SOP samples.
  44. Alarm / Report Thresholds not Displayed on Reports.
    - Added SOP alarm thresholds to reports.
  45. Cancelling continuous samples sometimes generates a cancelled sample record.

- Fixed an issue where a cancelled sample record would be created when cancelling out of continuous sampling.
46. Reduce CouchDB “shardingfrom” 8 to 1.
    - Implemented performance improvement designed to speed up machine group data replication.
  47. Change printers view to mango.
    - Implemented performance improvements to the printers page.
  48. Write “resharding” migration into migrations.
    - Database migration task for performance improvements.
  49. Change calibrations view to mango.
    - Implemented performance improvements to the calibrations pages.
  50. Change “auditUsers” view to mango.
    - Implemented performance improvements to the audit users select.
  51. Change “sopLocationSampleRuns” to mango.
    - Implemented performance improvements to SOP sampling.
  52. Change “sampleComments” to mango.
    - Implemented performance improvements to sample comments.
  53. Change “sampleUsers” to mango.
    - Implemented performance improvements to user record on samples.
  54. Change “sampleRuns” to mango.
    - Implemented performance improvements to sampling records.
  55. Get new translations post export.
    - Implemented wide translation improvements for all languages.
  56. Inconsistency with flow rate when rounding from L to m<sup>3</sup> on tickertape causes different numbers for particle counts.
    - Fixed a data consistency issue with flow rate on tickertape and reports.
  57. Couch password needs to be unique for each device.
    - Added security improvements to the on-device database.
  58. Incorrect Threshold error message.
    - Fixed an issue with threshold form error message on SOP form.
  59. Not recognizing local language keyboards.
    - Added support for Japanese keyboards.

**Known Issues:**

1. Onboard help document requires an update to match upcoming changes:
  - Updates to show that the export of audit trail can be exported in PDF format.
  - Update to image for Sample reports that includes the SOP filter input.

- Updates to text and images with improved translations for German, Spanish, Italian, French, Portuguese, Russian, Korean, Japanese, Chinese Simplified, and Chinese Traditional documents.

## Version: 1.0.9

**Production Release Date: October 2020**

**Includes fixes for these defects:**

1. Calibration data - missing data on Calibration Summary page for as received section.
  - Added data from calibrations that was missing on the calibration summary page.
2. Calibration - control to set the 50% markers removed.
  - Removed a control on calibration for 50% markers in graphs.
3. Unable to join existing machine group.
  - Fixed an issue where some connections to machine groups would throw an error stating unable to join existing machine group.
4. Calibration - Noise test result missing from the “As received” section of the certificate.
  - Fixed an issue where Noise test results were not appearing on the as received section of the calibration certificate.
5. SOP Sampling issues.
  - Improved sampling display on SOP dashboard when operating in a machine group.
6. No audit trail record is generated for changes to a user’s display name, username, or password.
  - Improved audit trail records with addition of audit items for changing of a user’s display name, username, and password.
7. SOP/Sampling Reports: Allow instruments to display all channels saved to a sample in a sampling report.
  - Fixed an issue where not all device channels would show in a sample report.
8. Unit does not recognize hard drives based USB storage.
  - Fixed an issue where external USB hard drives would not be recognized.
9. Chinese Translation Change Requests.
  - Improved Simplified and Traditional Chinese translations.
10. Delete button for a location is delayed on the instrument.
  - Fixed an issue where the delete button on locations for SOPs was delayed in appearing.
11. Device sometimes gets stuck on a blank screen after touchscreen calibration.
  - Fixed an issue where the device would get stuck after touchscreen calibration.
12. No event record for failed connection to LDAP server.

- Added an entry to the event log when there is a failed connection to an LDAP server.
13. Cannot print >50 samples to network printer.
    - Fixed an issue where large print jobs would never complete.
  14. No warning about invalid LDAP server.
    - Added warning when attempting to add an invalid LDAP server.
  15. Data filters stop working when Sample file size gets larger.
    - Fixed an issue where filters would stop working when database has a large amount of sample records.
  16. ISO 14644-1 requirements.
    - Added ISO 14644-1 support.
  17. Update calibration translations doc with changes to certificate.
    - Improved translations on calibrations certificate.
  18. Update instrument settings translations doc with changes to NTP server connection.
    - Improved translations on instrument settings focused on NTP server settings.
  19. Internal printer - temperature alarms not displaying temp symbol.
    - Fixed an issue where temperature symbols would not appear on printouts from the internal tickertape printer.
  20. ISO 14644-1:2015 issues.
    - Fixed an issue on ISO 14644-1:2015 reports where seconds were not being displayed.
  21. Calibration Certificate - As Received "Previous Calibration" header incorrect.
    - Fixed an incorrect header on calibration certificate.
  22. Electronic Signatures Must Record Meaning.
    - Added meaning to be recorded when an electronic signature is required.
  23. Cal cert formatting issues.
    - Fixed formatting issues on calibration certificate exporting and printing.
  24. Unable to leave a machine group when a device in the machine group is offline.
    - Fixed an issue where a device would be unable to leave a machine group if another device in the same machine group is offline.
  25. No audit record when system time is changed.
    - Added an audit record for when system time is changed.
  26. Continuous Sampling for SOP.
    - Added support for continuous sampling in an SOP.
  27. Calibration Certificate As Received Deviation calculation incorrect.



- Fixed As received deviations calculations on calibration certificates.
28. Alarm comments are not available anywhere.
- Fixed an issue where SOP alarm comments were not appearing on reports.
29. Particle counts on the printout are vertically misaligned in concentration mode.
- Fixed a formatting issue where particle counts would appear misaligned when in concentration mode on printout of tickertape.
30. ISO 17025 / A2LA Accredited labels.
- Added A2LA accreditation support to calibration.
31. ISO 17025 calibration option for calibration certificate.
- Added ISO 17025 support to calibration.
32. ISO 17025 Procedure.
- Added ISO 17025 procedure to calibration.
33. ISO 17025 Statement.
- Added ISO 17025 statement to calibration certificates when required.
34. No DNS entry for static IP Configuration.
- Added DNS entry for static IP configuration.
35. Audit entry wrong for printing audit log.
- Fixed an audit entry for printing out audit log.
36. Exported samples of manual and SOP samples have inconsistent count aggregations.
- Fixed a count issue on exported samples.
37. Unable to export large number of samples.
- Fixed an issue running sample reporting on large amounts of samples.
38. Wi-Fi Network interface appears to go to sleep sometimes.
- Fixed an issue where Wi-Fi network interface appeared to stop updating.
39. Unable to Print out an ISO or EU GMP report using a Networked printer.
- Fixed an issue with printing ISO and EU GMP reports.
40. Calibration - Particle Calibration Graph Zoom Buttons Do Not Function.
- Fixed an issue where graph zoom buttons would not function on calibration steps.
41. 50% Counting Efficiency step 2 - As Received.
- Added 50% Counting Efficiency test to as received calibration.
42. 100% Counting Efficiency step 3 - As Received.
- Added 100% Counting Efficiency test to as received calibration.
43. Optimize OS boot time - switch to system.

- Improved boot time.
44. Flow Test step 5 - As Received.
- Added Flow test to as received calibration.
45. False Count step 4 - As Received.
- Added False Count test to as received calibration.
46. EU GMP and ISO 14644 reports do not show reason for failure.
- Added reason for failure to EU GMP and ISO 14644 reports.
47. Sample printouts on the internal printer need a few extra line feeds after the last sample.
- Added additional spacing to bottom of sample printouts made by internal printer.
48. Need to implement full firewall/port blocking.
- Added additional IP and port blocking to improve device security.
49. Unable to connect to a unit over wired Ethernet while the connected to Wi-Fi.
- Fixed an issue where device could not connect to wired network when on a Wi-Fi network.
50. Internal printout does not use translated term for “differential” -- it uses English.
- Fixed a translations issue for differential on tickertape printouts.
51. Time on printed samples report is always using 24-hour clock.
- Fixed a time format issue on printed samples where they would always appear as 24-hour format.
52. Korean ISO report appears to have invalid micron unit of measure.
- Fixed incorrect micron unit on Korean report exports and printouts.
53. Include As Received Tests.
- Added ability to set new as received steps to calibration.
54. As Received Workflow.
- Added new workflow to calibration for as received calibrations.
55. Screen display momentarily scrambled when hovering a mouse pointer.
- Fixed an issue where screen would become scrambled when using a mouse.
56. Active Directory Configuration does not persist between updates.
- Fixed an issue with Active Directory configuration not persisting.
57. Unable to join existing machine group.
- Fixed an issue joining existing machine groups.