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LABWORKS LIMS v7.1

LABWORKS Development History

Last Updated: March 2022

LABWORKS 7.1 March 2022

- LWEmailSender application has been developed for facilitating sending of emails from LABWORKS applications
- Process Scheduler application has been enhanced to use RETAIN_WINDOW setting from SYSMGR
- LABWORKS application has been enhanced to support transport level encryption security
- LABWORKS Post Results new module has been developed to allow user to select a group of files to run PostResults
- Sample Modify application has been enhanced so that ANUM order can be modified
- Auto Qualifier has been enhanced to work with non-numeric results
- LABWORKS application has been enhanced with the ability to use %MDL% variables in the ini SpreadResult Entry section
- CR LaunchPad application has been enhanced to support SMTP configuration and provide email confirmation/notification for emails not sent
- Results Entry application has been enhanced to allow calculated date to be taken from source other than Key Input
- LABWORKS Desktop application has been enhanced to change text from "HELP" to "ONLINE MANUAL" for the help menu folder - "HELP" shortcut.
- Export Report application has been enhanced to support "Report User" field for export
- Process Scheduler application has been enhanced so that QuickTrack and Custody Tracking options are displayed in Menu
- DMR Module has been enhanced to support updated Discharge/Limit Set parsing logic
- NGMigration Tool has been enhanced to allow user to specify a Sample Range so that only specified samples can be migrated
- LWCtrlChartMDLStudy application has been enhanced to display LABWORKS Spec Limits for Control Chart
- LABWORKS application has been enhanced to support Crystal Report 2020
- MOR application has been enhanced to support data export using Cross Reference Search
- SampleModify application has been enhanced to support post modify programs with parameters
- Post Results 6 application has been enhanced to apply NoConditioning rule to MDL
- eWorksheet application has been enhanced to save eWorksheet under "User Path" folder instead of "Temp Path"
- Audit Trail Viewer has been enhanced to view the audit trail data based on Object ID
- LWSampleLogin has been enhanced to fetch Method Reference and Replicate information based on Location Code
- LWSampleLogin application has been enhanced to support LoginBatchID format of PROJYYMMDD
- LABWORKS SQC Charting form label has been corrected
- MOR report generator has been enhanced so that user can load the data directly by using macros to fetch the data
- LWInventory Item Stock Report has been enhanced to support expiration date
- LABWORKS application has been enhanced to display 'SDS' instead of 'MSDS'
- LABWORKS application has been enhanced to support default result value in all Sample Login tools
- LABWORKS application has been enhanced to audit new user account creation and modification of user accounts
- CRGEN application has been enhanced to export more than one field e.g. EXP01, EXP02, EXP03
- LWDDataViewer application has been enhanced to support review of Raw results
- In AutoLogin640 use keyword REPNO as property for result to specify replicate number

- LABWORKS Desktop has been enhanced to allow user to deactivate and reactivate menus
- LWMultiComponent Transfer has been enhanced to support import of datafiles as objects
- AutoLogin640 has been enhanced to support SAMPLE.REQTIME field
- Process Scheduler has been enhanced to allow setting of custom workflow architect statuses
- LWSample Login application has been enhanced so that Loc List & Test Code search will support "StartsWith" by default and support * wild card for "Contains"
- Sample Modify application has been enhanced to display an error prompt upon entering invalid date time format
- Results Entry application has been enhanced to report violation when any individual replicate value is out of specification, based on SYSMGR Setting "REPLICATE_REPORT_IND_VIOLATION".
- eWorksheet application has been enhanced to support execution of Post Results Entry Programs e.g. ViolationReorder after posting the results
- Results Entry application has been enhanced to support post result program invocation in asynchronous mode
- Results Entry application has been enhanced to support cursor movement configuration as 'Next Cell' or 'Next Empty Cell'
- PS Sample Scheduling Service Controller has been enhanced to support use of login record files in the logged samples based on LOGIN_USELR INI Setting
- Results Entry application has been enhanced so that ResultsEntry Detail Edit, Single and Multi-component screens display Instrument List drop down for selection
- LWViolationReorder has been enhanced so that trigger can be invoked with/without violation based on "Trigger Only On Violation" flag
- LABWORKS Desktop application has been enhanced so that LABWORKS Desktop position is reset to center of active monitor, if previously saved context is no longer valid
- COAPRN application has been enhanced with the ability to resize the main COAPRN6 program and save user specific context
- QA/QC Batch Builder has been enhanced so that a qualifier can be applied to all of the samples in the same QC batch
- LABWORKS applications e.g. Results Entry, PR6 have been enhanced so that all result source changes will be tracked in Audit Trail
- LWMulti Component Transfer has been enhanced so that when Reruns and Conflicts are active, single instance of sample/test code is selected by default and not included in Conflict Count
- Export Sample application has been enhanced so that latest Report Number and Date can be exported in CEF
- Sample Modify application has been enhanced so that user is allowed to move any selected item to the top/bottom of the list with one button click instead of only moving one up or one down each time.
- MDL Study Tracking application has been enhanced with audit trail capabilities for each study such that user can enter the audit trail reason for excluding the samples
- LWExplorer has been enhanced to display "Cancel" option on the progress bar displayed while loading the data set, so that user can cancel the load operation if required.
- QAQCBatchTemplateBuilder has been enhanced to add test codes to special QA samples
- Customer Base Setup in COA application has been enhanced to have enlarged work area
- LABWORKS SYSMGR setting for Process Scheduler "Due within 48 hrs" font and background colours have been made more readable in blank default database
- Cross Reference Search application has been enhanced to allow export of samples found using cross reference search to Excel

- Sample Modify application has been enhanced so that user can delete multiple samples at once and apply audit trail reason to all samples at one time, to prevent repeated UI entry for each deletion.
- Results Entry application has been enhanced so that it supports global import configuration for Replicate Data through SYSMGR setting "IMPORT_REPLICATE_DATA". It will support OVERWRITE, APPEND and FILLNULLANDAPPEND values.
- Sample Modify application has been enhanced so that user can edit "Logged in by" field.
- SQC Charts has been enhanced with adhoc SQC charting support
- LWQuickTrack application has been enhanced with the ability to use the record selector (highlighting in blue) to apply the next action (print label, move, delete) on those selected containers only
- LW Explorer has been enhanced to display 'Has Violations' field at sample level

LABWORKS 7.0 April 2021

- Default report templates (CRYSTAL_CUSTODY, CRYSTAL_RESULTS) have been added to ObjectPublisher. Supported apps are: LWSampleLogin, ProcessScheduler6.
- New SAMPLE columns have been added.
- SIMC.xsd, LWReporting.xsd data sources have been updated.
- ADD_TO_PROCESS_SCHEDULER has been deprecated
- The new properties have been added to LWSampleLogin template configuration.
- Added copying sample comments, user-defined fields, sample attachments, special info fields, result specifications, analyses creation in ProcessScheduler6.
- Analysis List Maintenance, LWSampleLogin, Results Entry, PostResults6 applications have been enhanced to support Container properties e.g. Preservative, Container Type
- LWAnalysis Maintenance application has been enhanced to support default qualifier for analysis codes/analytes for Single and Multicomponent Analysis
- AuditTrail Viewer application has been enhanced with "Contains" filter for Object Type and Object ID fields
- Crystal Report Viewer application has been enhanced with the ability to attach the report being viewed to an email and send the email
- A new application has been developed for tracking Control Chart and MDL Study. MDL Study supports CLASSIC as well as NELAC Rulesets.
- CustLog6 application window can be minimized and restored when invoked from LW Sample Login
- LWData Viewer application has been enhanced to support Report Address and Invoice Address fields in Sample Information configuration
- LWDataViewer has been enhanced so that with "Send Data To GTV" option user can start graphical trend viewer, without the need to manually "copy / paste" the data into the application
- LABWORKS applications have been enhanced to increase MDL property length to 14 characters
- LABWORKS Email Configuration Form labels have been improved
- Error Log Viewer application has been enhanced with the functionality to truncate all the records in database.
- eWorksheet application has been enhanced to populate current logged-in LABWORKS User ID as "Analyst" while creating new eWorksheet
- eWorksheet application has enhanced UX and eWorksheet Template changes are reflected in eWorksheet Builder without restarting eWorksheet Builder
- eWorksheet application has been enhanced to leave eWorksheets locked for cells containing macro/formula/code
- eWorksheet application has been enhanced to have the ability to resize the window

- eWorksheet application has been enhanced to support Up-Down Arrow movement for QC Batch Sample-Test List
- Results Entry and Sample Analysis and Validation applications have been enhanced so that eWorksheet application can be launched for the selected sample and analysis
- eWorksheet application has been enhanced to support "Validated" status
- LABWORKS application has been enhanced to add LWEXE path to Help and About dialog
- Instrument Maintenance application has been enhanced to add sort column for Location on front page
- LWInventory Management application has been enhanced so that Label counter is increased to support 6 digits
- LWInventory Management application has been enhanced so that Item Location is printed on the label.
- LWInventory Management application has been enhanced so that items having "DISPOSED" status are displayed in Inventory List based on the configuration
- LABWORKS application has been enhanced to support updated Workflow Architect State transitions for Sample object
- LW Explorer application has been enhanced to display complete property names in the filter list
- Location List Maintenance application has been enhanced to support acceptable characters for LOCATION code
- LWDData Viewer and LW Explorer applications have been enhanced so that QA QC Batch Builder application can be launched for the selected QA QC Batch ID
- LWQuickTrack application has been enhanced to support Container Label printing
- LW QuickTrack application has been updated for enhanced usability
- LWSampleLogin application has been enhanced so that documents and images can be directly scanned and associated with the sample during login
- LW Sample Login has been enhanced to add configuration for "Enter Key Action" as down or right
- LWDDataViewer application has been enhanced to support copy to clipboard functionality for Graphical Trend Viewer
- License Manager has been enhanced so that when 10 users are logged in and the 11th user tries to login then he should get a warning message "The maximum number of Licenses are currently in use". Already logged-in users should not get any message.
- eWorksheet application has been enhanced to resolve UI formatting issues
- LWInventory Management has been enhanced with "Grade" property to selectively allow material, batch or container level granularity
- LW Inventory Management application has been enhanced to filter Alert Home Page based on Storage Location, add ability for authorized user to edit ITEM Stock, display Item unit along with quantity
- LWInventory Management application has been enhanced to display "Display Only Overflow Stock Records" checkbox, which when checked will display only the Inventory Items with negative quantity
- Inventory Management application has been enhanced to support large number of Storage Locations with hierarchical selection view
- LWInventory Management application has been enhanced to support Mixture Storage Units and Consumption Units
- LWInventory Management application has been enhanced to display records for all the statuses, configured in Workflow Architect, on Inventory Management grid
- LW Inventory Management application has been enhanced to assist tracking Columns (GC/LC)
- LW Multi Component Transfer application has been enhanced to allow selection of multiple items for saving so that user does not have to select individual items separately

- LW MultiComponent Transfer Application has been enhanced to support Post Processing Programs
- "lwPostResults6.exe" application has been enhanced so that if PR6_INPUTFILE SYSMGR setting is NULL then on executing "lwPostResults6.exe PR1" command, user will be prompted to select the input file.
- LABWORKS Document Attachment functionality has been enhanced so that if "ATTACH_OVER_MAXFILESIZE_AS_LINK" SYSMGR setting is true, then the document is automatically attached as link when over "ATTACHMENT_MAXFILESIZE" SYSMGR setting value.
- LW QAQC Batch Builder has been enhanced such that it will store Start Date / End Date modification on Existing and My Batch tab on per user basis
- LWSample Login was enhanced so that it is possible to assign test filters by department
- LWSample Login, Analysis List Maintenance, LocList Maintenance application search facility has been enhanced for Location code and Analysis code to use "contains" instead of "starts with" search capabilities
- LW Sample Login application has been enhanced such that Copy Paste functionality includes Location Code, Analysis Code and Comment
- LWSample Login has been enhanced to modernize its look'n'feel by applying a more modern visualization template
- LW Service Controller application UI alignment has been enhanced
- LWSysCfg user onboarding process has been enhanced to update the users list based on UserHead table
- ModifySamples6 application has been enhanced to support minimize window functionality
- MOR application has been enhanced to support data export using Cross Reference Search
- MOR Setup application has been enhanced such that duplicate output cell configuration is not allowed
- NGII Interface has been developed : Agilent GC for Method 2186
- NGII Interface has been developed : Horiba ICP
- NGII interface has been developed : QuantStudio 6 qPCR
- NWA SQC Charts have been enhanced to add Method Reference to the second label
- Post Results 6 (PR6) application has been enhanced to allow comment import at analyte level based on OVERWRITECOMMENTS parameter
- Post Results 6 application has been enhanced to handle space after Analyte Name
- PostResults6 application has been enhanced to append or overwrite the earlier narrative analysis result based on OVERWRITENARRATIVERESULT parameter
- Process Scheduler has been enhanced to support association of analysis codes to containers for timed groups
- Process Scheduler has been enhanced to add Location Description as column option
- Process Scheduler has been enhanced to request username and password for data entry
- Process Scheduler has been enhanced so that timed groups can be sorted alphabetically as per selection
- Process Scheduler application has been enhanced to support up/down record movement on Sample Receipt configuration screen
- Process Scheduler application has been enhanced to support Analysis Column Width of 24 characters
- Process Scheduler has been enhanced so that when selecting SampleModify, the list of samples selected previously is retained after completing Sample Modify
- Process Scheduler application has been enhanced so that "Send to PDA" option creates a CSV file with a browse for the file save, so that the name and location of file can be specified
- LABWORKS application has been enhanced to merge Process Scheduler and Sample table

- Process Scheduler has been enhanced so that user can modify PS Priority of multiple samples at a time
- QA QC Batch Builder application has been enhanced to support launching of LW Container Management for the samples in the batch
- QA QC Batch Builder application has been enhanced so that typed-in or scanned Sample ID can be added to Available Sample Grid, irrespective of the sample status
- QA QC Batch Builder application has been enhanced to support "Contains" filter for all the grids
- LW QAQC Batch Builder application has been enhanced to support multiple report templates
- LW QAQC Batch Builder and eWorksheet applications have been enhanced to support PALE setting for Due Date Colours
- LWQuickTrack application has been enhanced to display "Analysis Status" so that user can dispose the Container if the status is "Validated"
- Replicate Management application has been enhanced to display Sample ID on Replicate Management Form
- Report application has been enhanced so that REPORTHEAD.REPORTUSER field is added to FLATDATA_REPORTHISTORY for export
- Results Entry application has been enhanced to display only the analysis codes assigned to samples based on "Filter by analysis assigned" configuration in Result Entry setup.
- Results Entry application has been enhanced to support re-ordering of tests
- Results Entry application has been enhanced to improve the usability on Edit Results Screen
- Results Entry application has been enhanced such that invalid Analysis Start Date Time or End Date Time is highlighted with red background colour
- Results Entry application has been enhanced so that raw results can be used in Calculations and Exports
- Results Entry application has been enhanced so that only valid analyst initials can be entered
- Results Entry application has been enhanced to support ctrl+c / ctrl + v from keyboard
- Results Entry application has been enhanced so that if "BULK_AUDIT" SYSMGR setting is true then audit trail will be recorded in bulk, only when the user presses save
- Results Entry application has been enhanced to support AREF and MDL while importing PR6 data for single component results
- Results Entry application has been enhanced to use "ROUND_RESULT_BEFORE_SPEC_EVALUATION" SYSMGR setting so that spec evaluation is applied after rounding, on cell focus change
- Results Entry application has been enhanced to allow list of units to be filtered based on Units configuration in Analysis Maintenance application
- Results Entry application has enhanced usability to support F6 shortcut key for Replicate Management Form.
- Replicate Management Form has been enhanced to display Graph as a tab and to save the context for the form size.
- Sample Analysis And Validation application has been enhanced with quick search and alphabetical sorting features for analysis.
- Sample Analysis validation has been enhanced so that the violating results are highlighted in the detail review for components
- Sample Invoice application has been enhanced to support 4000 characters in SAMPNOS field in INVHEAD table
- MODSMPS6 application has been enhanced to support due date updates
- Sample Analysis and Validation application has been enhanced to display Qualifier field based on INI Setting "DISPLAY_QUALIFIER"
- ScanDaemon - When in Debug mode temporary PR6 files are not deleted.

- Zip Report application has been enhanced so that user defined folders can be added. Also reports organized by type (Crystal, Access, Label) have the ability to be copied to My Reports folder and User Defined folders.
- AutoLogin640 application has been enhanced so that bottle code can be attached to analysis
- LWSampleLogin application performance has been enhanced during template configuration

LABWORKS 6.10 May 2020

- Analysis Qualification based on Method instead of Analysis Code for Personnel and Instruments
- Visually group analyses inside containers without having to use #group analyses
- QuickTrack enhancements making container movement easier
- Corrective Action / Preventive Action Reporting (CAPA)
- New personnel training & instrument calibration with events view
- Scheduled Calibration and Maintenance Events
- Event notifications for Personnel Training & Instrument Maintenance, as well as CAPA
- Persisted Group Enhancements (they now work as log batch details constructs) & Migration Tool for them
- Support CAS number for containers in analysis maintenance
- Analysis List Maintenance - Improve Delete Analyte
- For imports audit trail entries for newly added results and filespec are stored
- AutoLogin640 application enhanced to provide a specific list of analytes through the command prompt
- Automatic Exception Report to support Crystal formats and CRGEN6 options (export, mail...)
- Backlog report save to XLS improvement
- Support for CMDP
- CROSS REFERENCE enhanced with filtering capability.
- Report number tracking capability to include Revision Number
- Increase analyte name field size to accommodate longer names
- Add edit capability to eWorksheet fields
- Add ability to leave eWorksheets locked for cells containing macro/formula/code.
- Display container ID in eWorksheets
- LW Client-Install/Uninstall Script
- LWMCT: Update MDL and PQL based on Dilution Factor changes
- Allow user to see list of PR2 records in LABWORKS database when saving prelogin groups+
- QAQC Batching Query/Display in Data Viewer
- Data viewer export to Excel in a "sortable" way
- Audit old value and new value of long text when changing comments in LABWORKS Desktop
- LW EXPLORER - Print Comments
- Add QA/QC batch number functions in Explorer
- Viewing the Secondary Result from LWExp_DotNet
- LWInventory ability to transport only a fraction (specific quantity) of a stock item.
- LWInventoryManagement Manufacturer picklist available in the Itemstock table, not the item table
- Inventory Management - Filter Contains instead of Starts With
- Improve license count debugging - display dangling session
- LW Login - Entering Comments
- Sample Login - Add the capability for the Picklist for a field to be a combo/edit field
- LWWebtop - Request option to turn autocomplete off for password
- MCSelect6 - Filtering and Sorting Options
- MultiSample Login application enhanced to display a list of analytes related to the selected Multicomponent

- MULTI-SAMPLE LOGIN - Create/Modify PR2 files
- Attach Multiple Files to Sample or Analysis
- OPCEXP6 ability to export non numeric results
- Import Container IDs through PostResults6
- PostResults6 - Posting Replicate to be Reportable Result
- PostResult6 - Posting Violations
- Allow comment import from post result 6 on analyte level
- Adding MCSelect6 option to ProcessScheduler - Analysis Display
- Process Scheduler - Filters for Columns in Grid
- PS Sample Receipt Attach COC Persisted Group Button and Receive Samples Even if Not All Containers Received
- PS Schedule - Add Designated Printer to schedule setup, Print from Service
- Process Scheduler - Scheduled Time Frequency Logic improvement
- Process Scheduler - List to Select Multiple COC Report Formats
- RESULT/ANALYSIS - Prep Date/Timestamp supports
- Integrating MCSelect and LWQAQCBatchBuilder
- LWQAQCBatchBuilder - Carry MCSelect6 components from samples to QC Analyses
- QC Batching - Multiple sets of qc
- QC Batching - Move Ellipse to left and auto open
- LWQuickTrack application: Container Management Enhancements
- A system wide default setting "DEFAULT_REPLICATE_POLICY" added for the default Replicate Policy in SYSMGR and added functionality so that empty replicate rows are filled before appending new replicate rows.
- Add Validation User and Validated By to Results Entry Multi-comp Edit Screen
- Result Entry - Analysis Code Sub-filtering support
- Improve Calculation Performance
- Add option for specifications to be =>=< OR <> only
- Result Entry Replicates ability to select the latest replicate for In Process Control
- Attachments - link to web page in addition to file attachments
- Sample Modify - Update Analysis Order
- Sample Modify ability to lock the configured fields
- Sample Modify prompt when data type mismatch
- SYSMGR - Rounding imported single component results

LABWORKS 6.9 May 2019

- Support has been added for electronically submitting CMDP compliance reports.
- Sample Login date/time fields have enhanced usability
- Added ability to group Prelogin group records in LABWORKS database
- Multi Sample Login has been enhanced to provide copy-paste support
- CRGEN has been enhanced to allow more control over which folder to store the report in, including support for nested folders.
- DataViewer application has been enhanced to display Sample Turn-Around Time
- LABWORKS has been enhanced to support LDAP authentication for LDAP User IDs upto 256 characters
- DataViewer application usability has been enhanced by displaying the sample comments and by providing enhanced result sorting functionality
- SQC application has been enhanced to display Raw Result in NWA chart based on the configuration

- Process Scheduler now allows you to right click on a "ready to collect" sample and sort the spreadsheet used to edit sample fields.
- Process Scheduler has been enhanced to request username and password for data entry
- Added new SHOW_MCSELECT = YES to Process_Scheduler
- Process Scheduler has been enhanced to display scheduled groups as per the order of location codes
- It is now possible to set Process Scheduler initial status from LWSampleLogin. System Manager SHOW_STATUS needs to be checked.
- An improvement has been made to implement "PS Sample Edit" privilege for restricting PS Sample Edit to privileged users
- Performance of Process Scheduler - Edit Schedule functionality has been improved to support large number of items
- In Process Scheduler, the collection date is maintained as it is upon right-click on the samples to login.
- Inventory Management application has been enhanced to allow the user to enter the actual quantity used during Mixture creation.
- A new feature is added to support receive batch of inventory item.
- In LWInventoryManagement application, "OVRD_EXP_DATE" privilege has been changed to "CINV_OVRD_EXP_DATE"
- Application has been enhanced to support filtering by Department in Sample Selection dialog for 'Analyses Awaiting Validation' option.
- Result Entry application has been enhanced so that user can select the Sample Object Attachments from any folder available in the network.
- In Result Entry application, Analysis Start Date > Analysis End Date message prompt is now displayed on click of "Save" button
- Result Entry application has been enhanced to navigate to next Sample/Analysis Code directly from Component Result Entry screen for Multi-Component Analysis
- UX improvements have been implemented for Result Entry, Multi-Sample Login applications
- Sample Selection Dialog used across LABWORKS application has been enhanced so that the fields displayed in the dialog can be selected via configuration.
- QA QC Batch Builder has been enhanced to display the Update Batch button if a change is made to a previously created batch and a value in one of the Special Info Form fields is changed
- "My Templates" tab has been added in QA QC Batch Builder to provide a filtered view of templates for batch creation
- Improvement has been made in Explorer .NET History form to resize contents after resizing the form
- Sample Modify application has been enhanced to support configuration of the default update due date option e.g. "Always", "Never", "Prompt" SystemManager SAMPMODIFY_DUEDATE_RECALC
- Instrument Maintenance and Calibration application has been enhanced to support sending automatic warning email messages and disabling instruments for which maintenance/calibration due dates are elapsed.
- LABOBSPECINFO, LABOBJMAILLIST performance has been optimized
- eWorksheet application has been enhanced to allow the user to change the status from Completed back to InProgress
- eWorksheet application has been enhanced to support Excel Macros, pick up Sample List from QA QC Batch, import Sample Header information, prompt Audit Reason and eSignature
- eWorksheet has been enhanced to configure in the template and validate the cells that must have values before being posted

- An improvement has been made for the user to select the Y axis label as Raw Result for the Trend Plot
- Replicate Management forms have been enhanced to capture more audit trail data.
- LABWORKS application has been enhanced to support SPECINFO table from previous versions
- Analysis Maintenance Load from Analysis button size is enhanced to be consistent with other buttons
- Design guidelines have been applied to LABWORKS Explorer application to improve the usability
- LWExplorer has been enhanced to display date as well as time for user fields of datetime type

LABWORKS 6.8.5 December 2018

- Enhanced Chemical Inventory Application
- Replicate Support for Single and Multicomponent Instrument interfacing through Result Entry.
- Replicate Support using PR6 file through Result Entry.
- Replicate support for multiple data records for same sample/analysis in instrument file.
- Replicate Support using Multicomponent transfer
- Replicate Management Audit Trail.
- COA application - NWA 6.2 Support.
- MOR Report application - Macro execution in excel file.
- Analysis Reference to use Pick List instead of free form input.
- Default result support for Single Components analysis.
- Sample Collection App - Collection group creation in Process Scheduler.
- Audit reason in Analysis Maintenance and LocList Maintenance Application.
- Data Viewer support for better selection/view options in analysis list.
- Result Entry - Personal Training filter.
- Multicomponent multiple partial result entry without result modify privilege.
- WebTop enhancements.
- PS Sample Login enhanced to accept Collection Date as calendar input.
- OPCEXP6 ability to export non numeric results.
- eWorksheet history export to Excel.
- Support analysis validation rules for QA/QC batching custom statuses.
- QA/QC batch & Result Entry template support to order samples by BATCHSAMPS. BATCH_NAME, BATCHSAMPS.BATCH_INDEX.
- Enhanced Sample Login to support setting of Process Scheduler Initial Status.
- COA application enhanced to limit COA History Range.
- Support for CMDP

LABWORKS 6.8 April 2018

- Replicates
- NGII Instrument Interfaces
- Analysis/Location Code Delete
- Report Number/Report History
- ProcessScheduler Service – LogBatch Improvements, Label Printing
- ScanDaemon Service – Support Optional Parameters
- PostResults6 – Only update result records when modified.
- Analysis DueTime support – Configurable to Calculate due time.
- QAQC Batch Edit – Update Batch Sample ID

LABWORKS 6.7

- eWorksheets – Added new electronic worksheet application
- Mobile Sample Collection – Added new optional Tablet (Android/Windows/IOS) Sample Collection App.
- COA – Evaluate specifications when result values include > <
- Cross Reference Search – Added search for comments and results
- Exception Trail – Add search for Hold Time violations
- DataViewer – New Filter Saving, Comment indicators, Graphical Trend Integration, Sorting
- ProcessScheduler Service – Restart from last update
- SampleModify – Recalculate due dates when submit/collection date updated PostResults6 – Added support for post run programs.
- Workflow – Now support Retired back to Draft/Active

Labworks 6.6

- ResultsEntry – Color coding of Multi-component results
- ResultsEntry – Added Support for NGII Instrument Interfacing
- ProcessScheduler – Added Service option for sample creation
- DMR – netDMR format
- ScanDaemon – Service based ScanDaemon
- Improved specification handling in both ResultsEntry and Certificate of analysis to support evaluations when the result includes “>” or “<” sign.
- Dataviewer - Multi-component at top level
- Email Gateway – Single security point for SMTP
- MOR report improvements for Daily Report

LABWORKS 6.5

- Graphic Trend Viewer added.

LABWORKS 6.4.2 (Build 761) /6.5 (Build 762) - December 2015

- SFRound – Improved updating of RawResult value when updating non-result data.
- PostResult6 – Validation status on multiple uploads. Multiple analyte comments
- PostScr6 – Work around for SQL 2012 defect.
- Bartender Interface – Windows 8/10 support improved.
- SAP Interface support for SAP 4.6 Client
- ResultsEntry – Excel calculation added support to Run Macro
- ResultsEntry – Added support for PostResults6 format

LABWORKS 6.4.2 (Build 749) - September 2015

- ResultsEntry – Improved handling of scientific notation.
- COA – Updated header field handling
- Validation – Added configuration of display

LABWORKS 6.4.2 (Build 742) - August 2015

- ResultsEntry Excel calculations – Rounding of values returned from Excel
- Userfield limit increased from 50 to 99
- New QA Batching performance when using sample ownership improved
- SystemManager – Audit Trail of changes

LABWORKS 6.4.2 (Build 730) - July 2015

- Multi-Sample Login – Prelogin groups moved to database
- DataViewer – Added ReportAddress grouping
- New SampleLogin – added Container support

- History – added PQL, RawResult to display options
- ProcessScheduler – Removed internal analysis length limitation.

LABWORKS 6.4.2 (Build 724) - June 2015

- ProcessScheduler – 5th week corrections
- NWA – International date/number formats
- Domain Authentication on Server 2012
- ResultsEntry – added CAS number to display configuration
- DataViewer – Export to Excel as numbers/single spreadsheet
- Validation – Search for Samples with all analyses validated
- Validation – Reorder All/Scratch All...
- Sample Modify - Add/Remove test from All.
- AuditTrail – Apply to All...

LABWORKS 6.4.2 (Build 716) - May 2015

- COA – Create email message with PDF Attachment
- ProcessScheduler/ResultsEntry – Capture Analyst when different user for ResultsEntry
- Sample Validation – Load QC results Performance
- DMR – Enhancements – Added eDMR output/Performance

LABWORKS 6.4.2 (Build 698)- March 2015

- PostResults6 – Updated results proper spec violation update
- SQL 2012 Support improvements/Performance
- SQC Chart Performance
- Support for > 100K Location/Analysis Codes
- Export Data – Xtab samples down/tests across direct export
- DataViewer – added Relative dates.

LABWORKS 6.4.2 (Build 684) - January 2015

- LWLicenseManager – Added ability to release all but most recent license for a user.
- Analysis List Maintenance – Added Paste Component list
- PostResults6 – Changed parser to handle columns with mixed numbers/strings
- New Sample Login Improvements – Saving User context/Column Sizes.... Lots of stuff (fill down, copy/paste... Prelogin group selection enhanced.
- Process Scheduler – Link to new Sample Login
- Domain Authentication support workstations and users in different domains/trusted domains.

LABWORKS 6.4.2 (Build 670) - December 2014

- SMTP Configuration support alternate ports
- Refresh of Service Connections – Eliminated 90% of Errors in Errorlog
- WebTop Refresh of UI for compatibility with Chrome, Firefox, IE 10...
- Diagnostic Tool added individual Service check
- Location List/Analysis List – Added AuditTrail tabs to display change history
- New QA/QC Batching – User configurable fields
- New QA/QC Batching – Run instrument command/Crgen support/Sequence file generation.
- Crystal Report Runtime updated to Crystal 2013

LABWORKS 6.4.1 - April 2013

- Analysis Substitution UI
- Sample Modify – Assign Container
- Progress Report formats moved to database
- AuditTrail management moved to database/ Managed via UI
- Application Startup performance – MSI improvement

- Increased \$Code components from 300 to 1000
- Windows located User/Temp paths
- QA Batching – Delete batch
- PostResults6 – Added AVALUSER/AVALDATE fields
- Citrix Mapped drive support improvement in ResultsEntry/MCXfer
- Added Printer Selection to ResultsEntry/Progress Report....
- Audit Trail of Narrative Text

Q2 – 2012 – LABWORKS 6.4 – July 2012

- Sample Archive
- Enhance batching to allow assigning multiple QA samples, pre-assigned and ad hoc
- Sample login enhanced to allow user definable grouping
- Set location code specification without assigning test
- Lock or mark calculated result fields
- Ability to configure sample receipt, worksheets and routing reports with Crystal Reports
- Option to send sample reports to selected printers
- Webtop browser compatibility

Q2 – 2011 – LABWORKS 6.3 – New QA Batching Module

- Results Posting program improvements
- New License types provide more flexibility
- License management by group/location

Q4 2010 – LABWORKS V6.2.220 & 6.1.220 (maintenance releases)

- New SYSMGR options
- Result Entry/Result Reporting improvements

Q3 2010 – LABWORKS 6.2.188

- New Data Viewer Module for analysis-oriented data viewing. – New Discharge Monitoring Report (DMR)
- Improved consistence in behavior of result posting routines
- Special Info Forms Designer
- License Manager – allows user to view their current license/usage
- User Password Management for improved security
- Performance Improvements/Diagnostic tools
- Web Top Configuration Utility

Q2 2010 – LABWORKS 6.2

- Redesigned DMR (Discharge Monitoring Report) Module
- Improved instrument Interfacing Capabilities
- Data Viewer 1.0 - New Cross-Tab-Style Data Viewer
- Results Posting Improvements
- Data Integrity for Special Info Forms
- Platform Improvements

Q2 2010 – LABWORKS 6.1.158 (maintenance release) –

Improved implementation of VB6 applications start up.

- Re-engineered data export/reporting engine – performance improvements 50%-200%

Q4 2009 – LABWORKS 6.1.128 (maintenance release)

- Workflow Architect – modify state of multiple items in a single transaction
- Process Scheduler Updates
- PDA/PDET – output template improvements
- PAM – increased maximum number of analytes
- MOR support for Excel workbooks
- Access reports improvements
- New key controls correction of PQL's by dilution factor.

March 2009 – LABWORKS 6.1

- Web Top Environment
- *AJAX technology*
- *Zero Client Footprint*

**January 2008 – LABWORKS 6.0 –
WebEdition**

- Graphical Workflow Designer

June 2006 - LABWORKS VS 5.8 BLD 405

- Sample Selection Enhancements
- LABWORKS Explorer 2 – Split Screen Viewer
- Process Scheduler 3 – Expanded Column Displays
- Crystal Reporting with Invoicing

March 2005 – LABWORKS Enhanced Security VS 5.8 BLD 311

- Dynamic Control Limits. (Optional Program)
- LABWORKS Online Administrator, which allows creation of Web-based access to laboratory test results and reports. (Optional Program)
- A maximum of 512 analyses can be assigned to a location code.
- Gateway administrator enhancements

May 2004 – LABWORKS Enhanced Security VS 5.8 BLD 258

- Creation of update tool to assist clients in updating their systems to the latest database

February 2004 – LABWORKS Enhanced Security VS 5.8 BLD 256

- Multi-language capabilities for English, French, German, Spanish, Italian, Chinese and Russian utilizing a new LABWORKS internationalization tool
- Microsoft Outlook® styled interface and new calendar view in Process Scheduler
- Web enablement (automated e-mail and web reporting using the Crystal Enterprise® tool)
- Domain password authentication allows three options for LABWORKS logon
- Query Engine linked to LABWORKS Cross Reference Search function

June 2003 – LABWORKS Enhanced Security VS 5.0 BLD 255

- Tool creation to enable customers to comply with 21 CFR Part 11 regulations.
- E-mailing capability

- Citrix® security features
- Fully-integrated report tool using Crystal Reports® technology
- Hand-held computer integration to Process Scheduler®

April 2001 – LABWORKS Enterprise Version 4.6 Build 253 – Industrial Pretreatment Program.

- History List for Multi-Sample login fields that require same data is entered more than once.

February 2000 – LABWORKS Enterprise VS 4.6 BLD 252

- 2000 compliant
- Ownership groups allow the system manager to assign certain groups to sample points.
- Introduce Exception Report Setup/Generator - Allows user to select a report run for a specified time, analysis, sample, etc. Once the report is run, it can be sent to a directory path or via e-mail.

November 2000 – LABWORKS Enterprise VS 4.6 BLD 252

- A user program can be run automatically after saving new or changed sample results.
- Monthly Operating Report program
- Introduce Picklist Setup program

July 1999 – LABWORKS Enterprise VS 4.1 BLD 251

- All 32 bit LABWORKS new multi-sample login

April 1999 – LABWORKS Enterprise VS 4.1 BLD 250

- LABWORKS servers in Visual Basic 6.0,
- New Setup

March 1999 - LABWORKS Enterprise VS 4.1 BLD 174

- Sample log list, after multi-sample login, can now be printed.

September 1998 - LABWORKS Enterprise VS 4.1 BLD 174

- Most upgraded and new modules are related to instrument interfacing.

March 1998 - LABWORKS Enterprise VS 4.1 BLD 172 – Field Data Entry Terminal with GPS.

- Added Sybase to list of supported ODBC databases.

September 1997 - LABWORKS Enterprise VS 4.1 BLD 160

- Instrument Maintenance and Calibration Module
- Personnel Training Module

March 1997 - LABWORKS Enterprise VS 4.1 BLD 154

- Intranet/Internet LABWORKS Explorer Module

September 1996 - LABWORKS Enterprise VS 4.1 BLD 149

- Integration of Analyst and Instrument Databases

March 1996 - LABWORKS™ Enterprise VS 4.1 BLD 75

1995-98 Version 4.0 – 4.10 LABWORKS Desktop Windows

1985-94 Version 2.0 – 3.20 LABWORKS DOS

In 1985, the first operational installation of the LABWORKS LIMS was accomplished for the New Orleans Water Board.