First Quarter 2023

January 2023

- **Scanner Engine – Pieces Font style pulled into configuration** – Moved the settings for the pieces font into the configuration so that the font size, style, and field locations can be modified as needed by site rather than the settings being hard coded.

- **Universal Slide – Increased QC notes font size –** Moved some of the buttons in the ribbon down to allow for an increase in font size to 16 from 12 to improve readability.

- **Universal Cassette – Debug Specimen Type Setting** – Added a flag to the configuration to allow for message box pop ups to show the specimen type information to be used when debugging mapping issues.

- **Warehouse Module – Multiple Outbound Screen** – Button Changes – Changed the buttons on this pop-up screen inside the warehouse module to match other buttons in Assist modules.

- **Warehouse – Object Filing** – Utility and Void button changes – Changed the button sizes on the screen and the icons to be more consistent with the other modules of Assist.

- **Admin Web Site – Drawer Maintenance** – No selections – If no filtering had been done to get into the appropriate warehouse structure, and the retrieve button was pressed, the screen would not load and would not send an error message. Corrected this to send an error to screen indicating that selections must be made.

- **Print Center – Multple Format Label Screen** – Identifier on End - Added logic to have the toggle between PW and Non-PW LIS change the identifier on end check box where relevant.

- **Admin Web Site – Control Tissue Maintenance** – Control Print Template, Control Label Description, Control CAP description

- **Sample Testing – Controls Warehouse** – On demand ad hoc print screen – On the controls warehouse screen, added a print button to pop-up a screen

to allow for the ad hoc printing of free form controls. Added multiple lines of content as well as the ability to pick the tissue.

- **Admin Web Site – Warehouse Destruction Picklist Report** – Add From/To date criteria. Put this selection criteria on the report to allow for filtering of the data.

- **Admin Web Site – Material Type Maintenance** – Search Description Criteria. Added a search description field to the maintenance screen to allow for the filtering of material types.

- **Sample Testing – Receiving Tab – Sequence Generation** – Modified the logic on sequencing to place a zero value in the sequence field for all material types other than unstained slides. Previously, the sequence value was a 1 which could cause sorting confusion with objects that DO legitimately use sequences.

- **Sample Testing – Receiving Tab – Pathway LIS Add On Orders** – Discovered an issue with the Pathway LIS where add on orders placed on a package from a prior calendar year would carry the location identifier of the new year instead of the original year for which the case was created.

- **Sample Testing – Receiving Tab – Rush Selection Criteria** – Added a checkbox in red font to the selection criteria section of the screen on the receiving tab to allow for the retrieval of "RUSH" cases.

- **Sample Testing – Receiving Tab** – Detail Grid Rush Designation. Modified the detailed grid to color code the material type in red font if the detail record has a rush designation.

- **Sample Testiing – Rush Button** – Added a "Green/Red" button at the top of the screen with a RUSH designation and count to allow for visual ease in determining how many rush cases exist in the system.

- **Sample Testing – Inbound/Outbound Tab** – Item Count Value. The count value at the top of the grid was off by one.

- **Sample Testing – Shipping Tab** – Clear Manifest Value. Changed the settings to clear the manifest number from the screen in the header area and the detail area after saving the record and generating the manifest.

- **Sample Testing – Shipping Tab** – Reload Inbound/Outbound. Modified the logic when a save action is performed on the shipping tab to automatically reload the inbound/outbound grid. Previously, the saved transaction on the shipping tab were not visible on the inbound/outbound tab without clicking the retrieve button again.

- **Sample Testing – Inbound/Outbound Tab** – No Remaining Criteria. Added a checkbox to the selection criteria for "No Remaining Items". This allows employees to filter so that they only see packages in the summary view that have had all of their child objects returned.

- **Sample Testing – Shipment Tab** – Manifest Tracking Number Changes. Modified the manifest printing routine so that the tracking number is only shown once in the header. It was getting duplicated in the header in some circumstances. Also set the child manifest to suppress if it is a duplicate of the header to cut down on noise.

- **Sample Testing – Shipment Tab** – Manifest Utility - Modified the manifest reprinting routine so that the tracking number is only shown once in the header. It was getting duplicated in the header in some circumstances. Also set the child manifest to suppress if it is a duplicate of the header to cut down on noise.

- **Sample Testing – Manifest Utility** – Automatically Uncheck Unassigned – In the selection criteria of the manifest utility, there is a checkbox to allow for the filtering of objects that are unassigned to a manifest. It can be confusing if a manifest is selected, but this checkbox is still selected and does not return data. Added logic that if the manifest is selected in the dropdown box, to automatically uncheck the unassigned value.

- **Sample Testing – Manifest Utility** – All Material Criteria with Default. Added the all materials checkbox with the ability to default by the configuration to better control the defaults on the screen.

- **Sample Testing – Inbound/Outbound Tab** – Date Criteria. Added from/to date criteria for both the "created" and the "returned" date to the selection criteria to better enable the ability to find relevant data on the screen.

- **Sample Testing – Inbound/Outbound Tab** – Material Returned Column. Added the material returned column to the detailed grid.

- **Sample Testing – Inbound/Outbound Tab** – Status Connection. Corrected an issue where the grid data was mismatched from the package header to the wrong status file. This was causing incorrect status values to show in the grid.

- **Interface Utility – Pathway Client Load** – Sometimes, the Pathway LIS interface feed is sending empty client records over. These were getting written to the exception table. Changed the robot to simply suppress these transactions to cut down on the noise.

- **Interface Utility – Package Automatic Close Robot.** Created a new interface utility job. It looks for packages with an open status but no detail material that needs to be returned and closes them after they have been in the system for more than 48 hours.

- **Sample Testing – Receiving Tab** – Detail Grid. Changed the grid to sort by sequence and then material type sort order and then material type description.

- **Sample Testing – Receiving Tab** – Material Ordering Screen – Increased the width of this pop-up screen and several of the grids to make the information more readable.

- **Sample Testing – Inbound/Outbound Tab** – Detail View No Loading. Found an issue involving the detail view not loading if the date criteria was specified.

- **Sample Testing – Shipping Tab** – Save without Login. The screen was not checking to ensure an employee was logged in when a save was performed.

- **Sample Testing – Receiving Tab** – Object Conversion Tracking Data. Modified the process that creates the object conversion tracking data (i.e., unstained sides) to include the package and package detail record that generated the object records.

- **Sample Testing – Receiving Tab** – Object Conversion Deletion. Modified the delete process of a child object to clear any object conversion tracking

information that was generated when the material was added to a package. Previously, the objects were not getting removed which made it appear as if more objects (ex. Unstained slides) existed for use than did.

- **Sample Testing – Receiving Tab** – Material Ordering Screen. Provided the ability to apply a singled order type against multiple objects if they are checked.

- **Universal Slide – Material Type Integration**. Found an issue with a paraffin block material type with both unstained and stained slides that were entered via the Sample Testing module. Slide transactions were getting generated for the stained slides (i.e., client slides) when they should not have been printed.

- **Sample Testing – Receiving Tab** – Label Print – Modified the label print logic to not print the sequence number if it is zero. A change was made previously to no longer put a sequence number on material other than unstained sides. Since the sequence was printing by default on the various other material types, a zero was getting printed.

- **Admin Web Site – Material Type Maintenance** – Description Search. Added a search field at the top of the screen to filter the material type based on description.

- **Sample Testing – PCR Tab** – Concentraion Value Application. Modified the method used for applying concentrations to PCR Batches. Once a value is specifed, it will duplicate across ALL tests for the same extraction batch for the same accession number.

- **Admin Web Site – Culture Type Maintenance** – Created this screen as part of the Cytogenetics feature add to the sample testing module. This screen allows for the creation of culture types or groupings that will be used to stratify and organize cultures.

- **Admin Web Site – Antibody Master Maintenance** – Flow Flag – Added a checkbox to the maintenance screen to allow for an Antibody to be marked as a Flow specific antibody.

- **Admin Web Site – Culture Master Maintenance –** Created this screen to allow for the maintenance of cultures. This is part of the sample testing module where cultures are tracked.

- **Admin Web Site – Doctor Order Listing** – Employee Criteria Error – The logic behind the criteria for the employee was flawed. It stopped looking at the user ID once it encountered a dash. That means any user ID with a dash in it would not pull data correctly.

- **Universal Slide POU – Sequence Specification** – Added logic to the universal POU to allow for the manual specification of sequence numbers when printing slides. In technical component scenarios, a client might submit a block that has already been cut from and want slides produced starting with a specific sequence or slide number. If Assist is tracking the first cut of this slide, the routine already worked. If it needs to start at a different sequence, the field needed to be available for specification as a starting point. Added this to the screen with the ability to show/suppress as needed by configuration.

- **Universal Slide POU – Duplicate Count** – In order to better support the addition of manual sequence logic to the module, moved the duplicate count value (which is rarely used) to a less prominant location on the screen and reduced the size of the font to fit in better.

- **Universal Slide POU – Sequence Add to Specimen/Part**. Allowed for the ability to print the slide sequence number as a "dash value" on the end of the specimen/part if needed (i.e., A1-1). Also provided the ability to reflect this change in the bar code. This was largely done to support client requirements to put the sequence in the bar code.

- **Universal Slide POU** – Pieces Issue with Pathway and prior year cases. For the Pathway LIS, there was a scenario where the "Pieces" information could carry forward from a prior year. Corrected the way this retrieval is performed.

- **Universal Slide POU** – Patient Demographics issue with Pathway and prior year cases. For the Pathway LIS, there was a scenario where patient

information could carry forward from a prior year. Corrected the way this retrieval was performed.

- **Check In – MFG Batch Scanning** – Parent/Child MFG Tasks – Added extensive logic to the check in module for manufacturing tasks. The batch logic had been previously added, but the ability to have a batch of cases/accessions that also applied to a GROUP of tasks did not exist. Added this logic to create multiple individual task transactions off the scanning of a parent task number.

- **Interface Utility – Order Load – Multiple parts** – Found an issue where it was possible for the multi cassette identifier (i.e., part) to get truncated if more than one character and only reflect the second character (i.e., A-18 gets downloaded as A-8). Corrected this.

- **Admin Web Site – MFG Task Bundle Maintenance** – Cleaned up the screen to be more visually appealing and consistent with the other maintenance screens.

- **Admin Web Site – Specimen Holdng Site Maintenance** – Contact Name. Added a contact name to the maintenance screen to allow for the specification of a default employee name to reference when dealing with a holding site.

- **Sample Testing – Specimen Holding Site Maintenance –** Contact Name. Added a contact name to the maintenance screen to allow for the specification of a default employee name to reference when dealing with a holding site. This is for the maintenance area inside the sample testing module.

- **Sample Testing – Specimen Ordering** – Delay Reason capture and SpecimenDelayHistory. Added the abililty to write delay reasons into a history table to keep track of all the delays that have been speified over time on a specimen order. Also added the specimen delay reason information into the notes on the communication log.

- **Sample Testing – Specimen Ordering** – Contact Name. Added the ability to capture a contact name to be associated with a specimen order to keep

track of the employee that was being worked with in the processing of the order.

- **Admin Web Site – Attachment Form Library Maintenance –** Delay Form Type. Added a checkbox for the delay form type to be able to mark an attachment form in the library as a delay form.

- **Sample Testing – Specimen Ordering – Print Interactive Forms –** New Variables. Added variables for Holding Site Contact name, delay days, and delay reasons to the interactive form logic.

- **Sample Testing – Specimen Ordering – Print Form** – Refresh Button. Added a refresh button to the screen to allow for changes to the data fields on the screen and to have these values refresh into the variable driven information in the interactive form.

- **Admin web Site – Specimen Delay Reason Maintenance** – Created this screen to allow for the maintenance of specimen delay reasons. These reasons are used inside the sample testing module and allow for the indication of specific traceable reasons for the delay of a specimen.

- **Admin Web Site – Specimen Reference Type Maintenance** – Default Path. Added this field to the maintenance screen to allow for a default network/computer path to be specified to be associated with a reference type. Typically used in the upload of attachments inside the specimen tracking/specimen order section of Assist.

- **Main Scanner Engine – Case Components Tree**. Extended the screen to better accomodate the text being reflected in the case components tree area of the screen.

- **Main Scanner Engine – Pieces Information Positioning**. The X/Y coordinates for the pieces information was getting overridden in different places on the screen. Changed the logic to consistently position to the same place regardless.

- **Sample Testing – Receiving Tab** – Part Identifier on Non-Block objects – An issue was found where the "mandatory part number logic" was getting applied to material types where a part number would not be relevant such

as formalin bottles. Modified so that the logic only applies when the material type requires.

- **Sample Testing – Receiving Tab** – Location Identifier getting cleared on save. For the Pathway LIS, the location identifier was getting clear on the screen after generating notifications and was not getting loaded back correctly when the screen reloaded. Corrected this.

- **Sample Testing – Receiving Tab** – Screen not clearing on criteria selection if no data. If a package was selected, and then selection criteria was specified that returned no packages, the package drop down would reflect not specified, but the screen was not clearing of the prior case. Corrected this.

- **Universal Slide POU** – Intentional Logout clears scan history. On the slide POU screen, put logic in place to clear the scan history if a logout transaction is performed via either the logout button click or the scanning of the logout bar code. If the logout occurs due to the automatic inactivity timeout, the history is left. This allows for history to survive a timeout but to provide the option via configuration to clear the last cases worked by an employee when leaving for the day.

- **Universal Slide POU** – Patient Name Abbreviation Logic. Modified the patient name logic to allow for the specification of the number of digits to use when printing a patient name on a slide. The logic now allows for the specification of a number of character limits for first and last name assuming the interface into Assist carries the data in two fields.

- **Universal Slide POU** – Free Form Checkbox and Refresh Button. An issue was identified where if the employee had clicked on the "Free Form" checkbox to type in protocols and then clicked the "refresh protocols" button, the screen would show the protocol drop down but the free form checkbox was still clicked. Modified to not display the protocol drop down after a refresh and "honor" the free form checkbox.

- **Unviersal Slide POU – Patient Override Disable**. Added a configuration choice to allow for the disable of the patient override option for sites that do not want to have that ability provided to employees.

- **Universal Slide POU** – Scan Classification Override Defaults based on configuration change. Added logic so that if a configuration change is performed that the scan classification override will match the default source of the configuration that was chosen. This is to help in not logging scan transactions incorrectly (i.e., Microtomy vs. IHC vs. Facing, etc.) for sites that capture the specific types of transactions.

- **Universal Slide POU** – Login clears history if new employee. Added an additional ability to clear the scan history when a "new" employee logs into a session but to allow for the history to remain if the same employee logs back in. This supports the return of an employee that has auto logged out.

- **Universal POU – Send Keys** – Pad Zeros Logic – The copy clipboard feature of Assist gives the ability for a site to determine if leading zeros should passed into Windows or not. The feature had a flaw where it was padding based on the size of the last accession successfully parsed rather than on the default maximum number of digits for the number wheel. Corrected this.

- **Universal Slide POU – Mandatory Slide Transaction Scan Only.** Added the ability to place a check to require a slide (i.e., child scan) transaction after a cassette per SOP if a site wants to mandate a slide scan for a cassette

- **Universal Slide POU – Clear Button** – Added a clear button to the slide point of use screen to provide the ability for an employee to clear the screen especially if in scan only mode with mandatory slide object scan enforcement. Otherwise, it can be difficult for an employee to keep processing if a bad cassette transaction is submitted via scanner or manual entry.

- **Universal Slide POU – Scan Only Manual Entry Features**. Added multiple features to support the ability to use the screen in scan only mode to accomodate manual cassettes and manual slides.

- **Universal Slide POU – Doctor Order View**. Visual Changes and sequence number. Made some cosmetic changes to the doctor order view to make the panel more visually appealing. Also modified the order listing itself to include the sequence number if one is present.

- **Universal Slide POU – Scan History** – Sequence Number – Modified the scan history window to show the sequence number from the slide if one is present.

- **Admin Web Site – Culture Status Maintenance** – Created this screen to allow for the maintenance of the status values that can be associated with a culture inside the Sample Testing, Cytogenetics tab.

- **Warehouse – Void Pop Up – Visual Changes** – Modified this pop-up screen to include button icons to make the screen match the rest of the warehouse module. Also added select all and unselect all button to the screen.

- **Warehouse – Rescan Pop Up** – Visual Changes. Modified this pop-up screen to include button icons to make the screen match the rest of the warehouse module.

- **Warehouse – Picklist Screen** – Create Picklist button. Added a button to this screen to allow for a picklist to be manually generated.

February 2023

- **Warehouse – Warehouse/Cabinet Assignment** – Multiple Changes – Rearranged the screen to be more visually appealing. Placed the cabinet scan field at the top and put the new destination warehouse information at the bottom. Modified the routine to include a logout button. Added a checkbox to allow for a choice between automatically filiing on cabinet scan or showing on the screen and allowing for a button to perform the move. Set the selection of the warehouse location drop-down values to automatically load the storage listing area.

- **Warehouse –Cabinet/Drawer Assignment** – Multiple Changes – Rearranged the screen to be more visually appealing. Placed the drawer scan field at the top and put the new destination warehouse information at the bottom. Modified the routine to include a logout button. Added a checkbox to allow for a choice between automatically filiing on drawer scan or showing on the screen and allowing for a button to perform the move. Set the selection of the storage cabinet drop-down values to automatically load the storage listing area.

- **Admin Web Site – Doctor License Maintenance.** Show license number. Added the license number to the default grid view on this maintenance screen.

- **Admin Web Site – Employee Screen Report Listing –** Active Only Flag. Added logic to enforce the active only flag for both entry and as part of the selection criteria to cut down on visual clutter.

- **Admin Web Site – Corporate Division Maintenance –** LISCrossReference Field. Added a cross reference field to allow for the integration of divisions into other systems.

- **Admin Web Site – Department Master Maintenance –** ReportingPreference and Sort order option. Also Employee only and manfacturing only.

- **Interface Utility – Daily Product Count Utility –** Created this utility to calculate production daily counts for reporting purposes and the use in scoreboard applications.

- **Admin Web Site – Division Department Maintenance.** Created this screen to allow for the creation of the mapping of manufacturing departments and divisions of a company for use in sales reporting.

- **Universal Module – Scan Software Number Field**. Modified the point of use cassette and slide routines to include the date/time of the executable and write it into the database.

- **Universal Slide POU – Doctor Print Algorithm**. Always Cassette Identifier. Added logic to add a part identifier to the doctor orders being processed if one should always be present but it got entered "upstream" without.

- **Print Center – Bottle Labels Multiple –** Accession Prefix/Free Form Toggle Issue. There was an issue where an employee could flip into "free form entry" mode and type in a value for the accession prefix and then toggle OUT of "free form entry" mode and the original value types would be the one that printed.

- **Universal Cassette POU – Purge/Clear Cassettes**. Added logic to the "clear cassette" button to prompt whether ALL cassettes should be cleared or just the unscanned ones.

- **Universal Cassette POU – Cassette Already Scanned Enforcement**. Added a check based on configuration so that if a cassette has already been scanned, an error can be thrown to warn the employee that they have previously scanned the block in case an accident was made.

- **Universal Cassette POU – Pieces Adjustment**. Added a button to the screen to allow for a full display of all of the blocks in a case. This will be a listing of cassettes that have been scan and displays the number of pieces that were input and allows for the change of the pieces if necessary.

- **Universal Module – Screen Size**. Increased the size of the screen to support more information being displayed in the scan history window.

- **Universal Cassette POU** – Over 26 parts logic for alpha part identifiers. When more then 26 parts exists for sites that have alphabetic part identifiers, the routine was not handling once the part count got to "Z". Now the logic moves back to the top of the alphabet with AA, AB, etc. Moves to BA after passing through AZ.

- **Universal Cassette POU** – Emergency Cache Directory. Added an emergency cache button to the point of use for sites usiing drop file logic. This was done to allow for the writing of the drop file to an alternative directory in the situation where a local drop file printer is down. If this path is set to a network drive, the drop file folders can point there and be read by third party software to print to another printer in the environment. The logic can also be tweaked in the print queue history to then write an active queue record when in emergency mode.

- **Universal Cassette Queue** – Emergency Cache Directory. Made the same changes as above for emergency mode and the point of use to also work for the queue.

- **Universal Cassette POU** – Suffix Inside Part = "N". There was a flaw in the formation of the bar code if the suffix inside part was set to "N". This only impacts the Pathway LIS and is a rare configuration, but has been resolved.

- **Universal Cassette POU – Queue History Write**. The queue history was not being updated correctly for quantities greater than 1. Only one history queue record was being written regardless of the number of cassettes that were printed.

- **Universal Cassette POU** – Clear Button and Bottle Field. Using the clear button was clearing the bottle field even if the "no" option was taken but was leaving cassette in the list.

- **Universal Cassette Queue** – Outlet Addition. Added the outlet drop down field to the cassette queue to allow for the printing of queue transactions to a different outlet than the point of use outlet.

- **Admin Web Site – Login Screen**. Active User ID. The login screen was ignoring the active flag and would allow an inactive user ID to log into the web site. Applied this flag to the login logic.

- **Universal Cassette POU** – Suppress File Drop in emergency mode. Modified the cassette print logic when in emergency mode for file drop sites. Set the emergency transaction to write to the print queue but NOT to generate a record into the emergency file drop location since nothing is monitoring that file.

- **Universal Cassette POU** – History queue reflect emergency printer. Modified the print queue to allow for a change to emergency mode for the queue to look to the emergency file location in case the queue is not being used to pass emergency print requests instead of the queue database.

- **Universal Cassette POU** – Emergency Mode Allowed flag. Added a configuration flag to determine whether or not the emergency mode button is enabled.

- **Universal Cassette POU** – Emergency Mode Removal at Logout. Set logic to turn off emergency mode at logout so that the setting has to be intentionally set by the employee.

- **Universal Cassette POU –** Emergency Mode Does not require child scans. When in emergency mode, the cassettes are more than likely being printed in batch mode. Want to show the cassettes that were sent but do not

require the scan of those cassettes before being allowed to proceed to the next requisition or bottle.

- **Admin Web Site – Equipment Interface Protocol Routing Maintenance** – Search Interface Type Drop down was not loading. Corrected this.

- **Sample Testing – Receiving Tab.** Specimen Type Not Saving. Found an issue where the specimen type was not saving for material types that did not allow sequence numbers. The seqeunce number field on the screen did not accept values of zero, but the data was being saved with a zero, which did not allow it to show when being modified.

- **Scoreboard – Distribution Grid** – Percent of Total. Added a column to the distribution grid scoreboard view to reflect a percent of total on slide counts. Made this column visible by configuration.

- **Scoreboard – Birthday Board.** Created a birthday board to allow for the display of "birthdays of the month" based on the Assist employee master file.

- **Admin Web Site – Culture Duration Maintenance**. Created this screen to allow for the maintenance of culture durations. This is part of the cytogenetics feature set inside the sample testing module.

- **Sample Testing – Receiving Tab**. Specimen Type Not Saving. Found an issue where the specimen type was not saving for material types that did not allow sequence numbers. The sequence number field on the screen did not accept values of zero, but the data was being saved with a zero, which did not allow it to show when being modified.

- **Sample Testing - Inbound/Outbound Tab** – Added a "wildcard" checkbox to allow for partial accession number vs. exact accession number retrievals. Previously the only choice was partial. Added this for both the summary and detail retrieval.

- **Sample Testing - Inbound/Outbound Tab –** Added the accession prefix and location identifier to the selection criteria for both the summary and detail view to allow for better filtering of the data retrieved on the screen.

- **Sample Testing - Receiving Tab** – Added the accession prefix and location identifier to the selection criteria to allow for better sorting/retrieval.

- **Sample Testing - Receiving Tab** – Added logic to ensure that a second package cannot be created for the same accession number.

- **Sample Testing - Receiving Tab** – added database fields to store the software version, executable date, and machine name to the database to provide better traceability as to where a record came from in the database for managing versioning.

- **Sample Testing – Cytogenetics Tab** – Bulk Status Change Added. Provided the ability to update multiple culture status values using the +/- buttons and a separate status drop down and save button.

- **Sample Testing – Cytogenetics Tab** – Culture Tracking Audit Log – Added an audit trail for all maintenance activity against a culture record.

- **Sample Testing – Cytogenetics Tab** – Cell Count, Volume, Notes application. Set the routine to update all three fields for all records included in the submission master when one of the records is updated. This keeps these values in sync across all values for the accession when a single culture record is changed without having to update them all individually.

- **Sample Testing – Receiving Tab** – Detail Area Row Selection Error. Found a way to make the detail area selection not load the maintenance section of the screen correctly. Resolved this issue.

- **Sample Testing – Material Order Screen.** Panels across order categories. Made a modification to the material order screen to support the selection of panels (i.e., kits) where the kits cross order categories. Previously, the screen only supported kit selection if all of the order types were within the same category.

- **Admin Web Site – Kit Detail Maintenance.** Order Types across categories. Modified this maintenance screen to allow for the cross of a kit/panel across multiple order categories.

- **Sample Testing – Material Order Screen.** Panel Selection issue. When panel selection was being performed, the first cell in the list of order types was

showing as selected. It did not impact functionality but did not visually reflect the components of the panel.

- **Admin Web Site – Collection Point Maintenance** – Duplicate check and filter by description. Put logic in place to make sure that the same collection code is not used across multiple collection points to protect data integrity.

- **Scanner Engine – Routing Designation** – Added logic to allow for the routing designation from the LIS Interface screen to show above the scan history and for an alert to sound.

- **Admin Web Site – Material Type Maintenance**. Modified the material type maintenance screen to allow for the specification of two new fields: SpecimenIdentifierAllowed and PartIdentifierAllowed. These will be used to ensure at receiving inside Sample Testing that specimen/part identifier information is being entered correctly.

- **Sample Testing – Receiving Tab.** Material Type Specimen/Part Allowed Logic. Added logic to the receiving tab to check the speciman/part allowed flags on the material type to enforce whether or not the data is allowed on data entry.

- **Universal POU Slide – Client Specimen/Part**. Modified the routine that pulls the client specimen/part information to look into the sample testing material submitted area of the database to pull out any information that was entered and print it if the information was not found in the LIS Interface table first.

- **Sample Testing PCR Communication Log** – Found an issue where the communication log entries were getting saved by default with the incorrect status defaulted which was stopping the notes from showing in the communication log.

- **Admin Web Site – Transaction Log Listing** – Extended this report to show the date/time stamp of the software that generated the data.

- **Admin Web Site – Accession Slide Count Maintenance.** Added a table for bar code reserved characters. Added a check to the protocol detail entry

maintenance screen to not allow the usage of any values located in this table.

- **Admin Web Site – Culture Tracking Report**. Created this report to provide visibility to the culture tracking records that are generated inside the sample testing module of Assist.

- **Admin Web Site – Culture Tracking Audit Log.** Created this report to provide visibility to the audit log of all changes made to individual culture tracking records inside the sample testing module.

- **Admn Web Site – Specimen Order Step –** Automatic Email Checkbox. Added a checkbox to the specimen ordering pop up screen so that specimen order steps can turn on/off the automatic email option.

- **Sample Testing – Specimen Order Entry** – Automatic Email driven by order step. Modified the specimen order pop up screen to turn the automatic email check box on/off based on the step that is selected from the drop down box.

- **Admin Web Site - Bar Code Reserved Maintenance –** Added a maintenance screen to allow for the maintenance of a list of characters that cannot be placed into protocol values due to their reserved keyword status inside bar codes.

- **Distribution Send Out. Software Time Stamp.** Added the date/time stamp of the software executable to the database to capture each time a record is written to simplify knowing which version of the software generated a transaction.

- **Distribution Send Out. Manifest Printing.** Add bar code position X/Y as configuration variables and standardized buttons on the utility screen.

- **Admin Web Site – Distribution Reconciliation Report** – Outbound Data Fields. Added the outbound data fields to this report and also cleaned up the selection criteria layout to make the screen more visually appealing. Formatted the accession number field instead of showing in separate columns, added the object type description, and removed several empty columns from the report.

- **Admin Web Site – Distribution Items Note Returned**. Manifest Number and Object Type. Added these two fields to the report and added the manifest number to the selection criteria.

- **Admin Web Site – Business Unit Maintenance**. Default Specimen Business Location. Added this field to the maintenance screen to allow for defaulting.

- **Admin Web Site – Material Type Maintenance** – Mandatory Specimen Type. Added this field to the screen to allow for the indication of whether or not a material type must have a specimen type entered during sample testing material entry.

- **Sample Testing – Receiving Tab** – Mandatory Specimen Type. Added logic in the sample testing module to enforce the mandatory specimen type flag from the material type table when entering orders.

- **Admin Web Site – Notification Maintenance** – Expanded the notification maintenance screen to support multiple new views to ensure compatibility with SMTP servers that need more recent versions of TLS and also to support HTML email send outs.

- **Notifier Module –** Modified this "robot" to allow for the sending of outbound SMTP message using the most up to date credential logic and security. Also expanded to allow for the send of HTML payloads for sophisticated email reports. Added logic for tying into the email library.

- **Inventory Module – Employee Active Check.** Found several places inside the inventory module where the Active flag was not being checked when working with employees and authorizations. Modified all places that check for employee information to enforce that the employee must be active.

- **Sample Testing – Specimen/Block Ordering.** Enforce patient name. Added a configuration flag to enforce whether or not the patient name can be left blank.

- **Sample Testing – Specimen/Block Ordering.** Multiple Notes Show most recent. The original note text was being shown on the detail area instead of the most recent. Modified this to reflect the most recent with all of the historical entries shown in the communication log.

- **Sample Testing – Specimen/Block Ordering.** Order Type Naming. Added a configuration flag to allow for alternative naming of the order type (ex. Test Name).

- **Sample Testing – Specimen/Block Ordering.** Hide Order Category. Added a configuration flag to allow for the hiding of the order category to cut down on screen complexity if there is only a single order category.

- **Sample Testing – Specimen/Block Ordering.** Order Type Duplicate Check. Added logic to not allow for the same order to be placed twice on a single case and also added a check box for a "close on save" feature to not require the clicking of the close button.

- **Sample Testing – Specimen/Block Ordering.** Clinician naming. Added a configuration flag to tallow for alternative naming of the clinician (ex. Ordering Physician).

- **Sample Testing – Specimen/Block Ordering**. Date of Birth Empty. Added the ability to have no date specified ("None") with the date of birth and reflect it as such on the screen.

- **Sample Testing – Specimen/Block Ordering**. Specimen Collection Date Empty. Added the ability to have no date specified ("None") with the specimen collection date and reflect it as such on the screen.

- **Sample Testing – Specimen/Block Ordering.** Default printer. Added a configuration flag for a default printer, but also added logic that if the default printer is changed to print, the screen remembers that change and it becomes the active default for that session.

- **Sample Testing – Specimen/Block Ordering**. Save On Close with errors. Found an issue where if errors were made from a validation stand point on the entry screen that the screen was closing without indicating that there was an error and that the data was no saving. Moved the "close on save" to after the point where validation was successful and the order actually saved.

- **Sample Testing – Specimen/Block Ordering**. Delay Reason Attachments. Found an issue where the delay reason was being requested on all

attachments even if it was not a delay reason type of attachment. Resolved this to be active only on an attachment that is designated as a delay attachment.

- **Sample Testing – Specimen/Block Ordering**. Resolved the issue where if errors were made from a validation stand point on the entry screen that the screen was indicating that the order must be saved when test ordering was clicked rather than showing the actual error that should have been shown.

- **Sample Testing – Specimen/Block Ordering**. Attachment Fax Number. Added configuration flags to allow for flexibility in determining if the fax number should load from the client or the holding site when an automatic form attachment loads.

- **Sample Testing – Receiving Tab.** Surgical Technique. Added a drop down for the surgical technique to allow for the specification of this information on the receiving details section of the screen. Moved objects around on the screen to accommodate this new data.

- **Sample Testing – Flow Tab**. Designed the flow tab including the grid and all of the drop down fields.

- **Admin Web Site – Flow Status Maintenance** – Created this screen to allow for the maintenance of the various flow status values that are used on the Flow tab of the Sample Testing module.

- **Admin Web Site – Antibody Template Maintenance** – Created this screen to allow for the maintenance of antibody templates. These templates are used to establish a one to many relationship between order types and antibody combinations or cocktails.

- **Admin Web Site – Order Type Maintenance** – Antibody Template Dropdown. Added this dropdown to the order type maintenance screen to allow for the specification of antibody templates for order types that have associated antibody cocktails.

- **Admin Web Site – Antibody Master Maintenance**. Selection Criteria. Added a check box for Active only, Flow only and the antibody description into the selection criteria for the screen.

- **Admin web Site – Antibody Template Details**. Created this screen to allow for the creation of the "child" level of antibody panels that can be associated with order types.

March 2023

- **Distribution Module – Manifest Buttons**. Changed the manifest buttons: Create, Print, Utility, Reconcile to be picture buttons of a standard size rather than "word" buttons to fit in with the architecture of Assist.

- **Distribution Module – Create Manifest and Require Manifest** – Added configuration buttons to provide the ability to enable/disable these screen objects.

- **Admin Web Site** – **Antibody Master Maintenance**. Font Color Addition. Added the font color to this maintenance screen to allow for the color coding of antibody values.

- **Interface Utiity Robot – LIS Electronic Requests Comments**. Added logic to the robot utility to pull forward any interface comments and place them in the order master comments field.

- **Admin Web Site – Specimen Type Listing** – Created this report to serve as a specimen type dictionary that lists the case types, specimen categories and specimen type information that is set up inside Assist.

- **Admin Web Site – Equipment Protocol Routing Maintenance** – Active Flag. Added an active flag to this maintenance screen to allow for routing records to be inactivated rather than deleted.

- **Stain Queue – Equipment protocol routing** – Active Flag. Added logic into the stain queue to look at the active flag off the routing maintenance screen to not include transactions into the stain queue interface to staining platforms.

- **Admin Web Site – Order Type Maintenance**. Business Unit Criteria. Added a drop-down box for the business unit to be used as selection criteria for filtering the order types.

- **Admin Web Site – Distribution Reconciliation Repor**t – Date Range Error. The to date was defaulting to 12 AM instead of 12 midnight which was causing data not to retrieve correctly for the limitation of the to date.

- **Distribution Module – Shipment Tracking Open Scan**. The open scan logic was not working correctly. Fixed this so that it operated to send the next scan into the shipment field when the "Open" checkbox is checked.

- **Distribution Module – Manifest View Wide Screen**. Added a "wider" version of the distribution screen that shows the manifest items being added as scans are performed when the manifest is being done.

- **Distribution Module** – Active manifest pull back from drop down. Added the ability when in the "wider" manifest view to pull back an active manifest to add to it or see the objects that were on the manifest.

- **Distribution Module** – Manifest/Accession duplicate check. Added logic to the manifest view to warn the employee if the same accession is scanned more than once for an open manifest to warn that a duplicate scan has been performed.

- **Admin Web Site** – **Surgical Technique Maintenance.** Cassette/Slide Text. Added two new fields to the surgical technique maintenance screen for the cassette and slide text to allow for information to be appended on the human readable when printing the objects to handle things such as Frozen Sections.

- **Universal Cassette POU – Surgical Technique** – Added a drop-down listing to the screen to allow for the specification of a surgical technique for the specimen. This is a new field in the specimen type tracking table and allows for the designation of a specimen as something like a frozen section to print seperately on cassettes/slides as needed. This drop-down is positioned by the specimen type and the override button of the specimen type will also update the technique if it is visible and specified.

- **Accessioning – Surgical Technique.** Added a drop-down listing to the screen to allow for the specification of a surgical technique for the specimen. This is a new field in the specimen type tracking table and allows for the designation of a specimen as something like a frozen section to print

seperately on cassettes/slides as needed. This drop-down is positioned by the specimen type and the override button of the specimen type will also update the technique if it is visible and specified.

- **Universal Cassette POU – Standardize Buttons** – Several of the "alternate" views of this screen (ex. Manual login) still had "word" buttons rather than pictures. Changed this to be more standard.

- **Universal Cassette POU** – Magazine Fall through logic. Modified the logic for the selection of the cassette magazine. It will position first by accession prefix which will be overridden by the specimen type but ONLY if the override check box is not selected.

- **Admin Web Site** – Accession slide count maintenance. Clear slide recipe. The slide recipe section of the screen did not clear if the "header" record was clicked after first selecting a detail record. This was visually confusing.

- **Universal Slide POU. Scan classification override**. Modified the scan classification override so that a selection will turn the position protocol by specimen on/off depending on the override (ex. IHC, SST, RCT turn it off).

- **Universal Slide POU**. **Print Template. Hide Magazine.** Discovered that the print template was not loading correctly the first time into a routine to hide the magazine for sites that have choices between a printing platform without magazines (ex. Zebra) and WITH magazines (ex. Leica).

- **Universal Module. Template Tab**. The template tab had a visual issue where the modifications area was overlapping onto the grid area. The screen worked, but looked bad. Also converted the save and delete buttons to be picture buttons instead of words to be consistent.

- **Admin Web Site** – **Scan Classifications Override.** Position by protocol, show requisition, and use specimen quantity check boxes were added to allow for these fields on the screen to be marked for the universal module screen views to adjust as indicated.

- **Admin Web Site** – **Printer Prefix Override Maintenance**. Specimen Type, Target printer, and object type. Added these drop downs and fields to the

override maintenance screen to provide for another layer of "fall through" logic when choosing magazines.

- **Universal Cassette POU – Scan Classification Override**. Use Specimen Quantity. Added this logic so that if the scan classification override is used, the check box for "Use Specimen Quantity" can be tied to the classification instead of the configuration.

- **Universal Cassette POU – Scan Classification Override.** Show Requisition. Added this logic so that if the scan classification override is used, the requisition information ont he screen can be hidden. This allows things such as "More Tissue" scans to be different from manual mode.

- **Universal Cassette POU** – Magazine Selection Fall through logic. Looks for the magazine at the prefix level first. Then looks for specimen/magazine cross reference. Then looks for a magazine from the block slide instructions. Then looks for the magazine in the prefix override with the specimen.

- **Sample Testing – Receiving – Unstained Slide bar code**. The bar code was carrying the protocol value from the order type rather than the protocol value for the slide recipe to which the order type is married when printing the slide label from the receiving screen. Corrected this assuming it is a single value on the order tie. Otherwise, kept the order type. This was to resolve an issue with the stain queue interface where the values on the order type were not synced to the values on the slide recipe.

- **Admin Web Site – Specimen Type Tracking Audit Log.** Surgical Technique was added to the report and also to the selection criteria.

- **Admin Web Site – Prefix Printer Override Maintenance** -Added the specimen type and object type to the grid and made them visible. Added the specimen type, prefix, object type, and "no specimen" to the selection criteria.

- **Doctor Module – Activation Error.** The doctor module did not have logic to show the "not activated" message at launch if not activated. Fixed this issue.

- **Universal Cassette – Case Rush Visual Notification**. Put logic into the universal cassette POU to turn the accession section of the scree blue if there is rush against a case and sends the alert beep codes to the scanner. The routine checks on requisition scan and also reflects the text "Case Rush" in the screen header. The header and color scheme switch back to normal when a non-rush case is scanned.

- **Admin Web Site – Referring Physician Maintenance**. New Placeholder Checkbox. Added this checkbox to the maintenance screen to allow for an indication that the physician is not "real" but is rather a placeholder to allow for entry of a new value. This is only used in the specimen order screen in the sample testing module.

- **Distribution – Manifest Creation**. Removed the text string "Manifest" from being written into the manifest description. This is redundant since the description is in the manifest table, it IS a manifest. This allows for data to be shown more concisely in manifest drop down lists.

- **Distribution – Manual Login Screen Buttons**. Adjusted the buttons on this panel to be picture buttons instead of word buttons to be more consistent with the rest of the module.

- **Distribution – Manifest Creation**. Modified the manifest creation process to require a user to be logged into the module before creating a manifest and also to put a default "open" status on the manifest header record to introduce manifest status to distribution manifests.

- **Distribution – Manifest Contents Write.** Modified the distribution module so that detailed data is written into a new manifest contents database table as scan transactions are performed. Previously, the manifest number was updated on the distribution table and that was the only way to see manifest contents. This adds a seperate manner of tracking.

- **Distribution – Manifest View**. Added logic plus deletion. Added a "wider" version of the distribution screen where the contents of open manifests can be displayed and added to if needed. Objects can also be removed from the manifest contents without having to go to the manifest utility screen.

- **Admin Web Site – Specimen Category Maintenance** – Specimen Priority. Added a numeric field to the maintenance screen to allow for the specification of a specimen priority. This will be added to the algorithm for automatic distribution.

- **Admin Web Site – Body Source Maintenance.** New placeholder checkbox. Added this checkbox to the maintenance screen to allow for an indication that the body source is not "real" but is rather a placeholder to allow for entry of a new value. This is only used in the specimen order screen in the sample testing module.

- **Admin Web Site – Manifest Status Maintenance**. Created this screen to allow for the maintenance of a status value that can be applied to a manifest. This is found inside the distribution module.

- **Distributon – Manifest Utility Requires Login**. Added logic when the manifest utility button is clicked to require that an employee is logged into the module. Added the same logic for the reconcile button.

- **Distribution - Manifest Utility Scan History**. Modified this screen to allow for the scan history object identifier to pull from the override abbreviation field in the configuration if it exists.

- **Distribution – Manifest Utility**. History Details. Added the manifest status the details area.

- **Admin Web Site – MFG Task Maintenance**. Created/Last Maintained Information. Added created and last maintained information for user/date to the table to serve as an audit log.

- **Check In. MFG Task Library Button**. Added a button to this module for sites that perform task scanning to show the full task library.

- **Check In Module. MFG Task Bundle Scanning.** Added logic to this module to allow for the tracking of task bundles where one task can be scanned and equate to mutiple manufacturing tasks.

- **Admin Web Site. Specimen Order Step Maintenance.** Delay Step. Added a check box to the specimen order step maintenance screen to allow for a step to be marked as a delay step.

- **Sample Testing – PCR Batch Utility**. Added a suppress closed check box to the selection criteria. Also modified the batch drop down to show the font color in the status color of the batch. Also added the batch status to the top of the grid to easily indicate the status of the batch visually.

- **Sample Testing – PCR Tab.** PCR Batches Drop down. Modified to show all "non-closed" status batches and added color coding to the font on the drop down to indicate the color of the batch statuses.

- **Sample Testing – PCR Tab.** Extraction Batches Drop down. Modified to show all "non-closed" status batches and added color coding to the font on the drop down to indicate the color of the batch statuses.

- **Sample Testing – PCR Tab**. Free Form Order Type. Added a checkbox to the screen to allow for a free form order type description to be toggled with the drop down list to allow for the use of text in the selection criteria.

- **Admin Web Site** – Business Unit Configuration Override. Created this screen to allow for the specification of configuration settings at the business unit level as opposed to settings for the configuration in general or personal for a user at a time.

- **Sample Testing. PCR Tab. Gear button.** Modified the gear button with the view checkboxes to write into the personal configuration table if settings are changed so that the settings will load the next time the employee logs in.

- **Sample Testing – Receiving Tab.** Show Order Type on main screen. Added a check box to the receiving screen to allow for the toggle between material type and order type. This allows the employee to see the orders without having to go back to the entry screen pop-up.

- **Admin Web Site – Distribution Auto Status Maintenance**. Created this screen to allow for the maintenance of distribution auto status values. These are used inside the distribution module where auto distribution is performed.

- **Distribution. Manifest Header Maintenance**- Added a button to the manifest utility to allow for detailed changes to the manifest header information.

Second Quarter 2023

April 2023

- **Print Center – Manufacturing Task Label**. Added this sub-screen to allow for the printing of manufacturing task labels.

- **Admin Web Site – Product Category Maintenance**. Manufacturing Checkbox. Added this check box to mark a product category as manufacturing.

- **Admin Web Site – Product Master Maintenance**. Date/User maintenance timestamps and product department. Added last maintained date and user information and a product department to the maintenance screen.

- **Quality Module Manufacturing. Version Information**. Modified the write into the transaction log table to include the date/time of the executable

- **Interface Utility. Auto Distribution Logic**. Added a routine to the interface utility to allow for the creation of automatic distribution information for sites that "pre-distribute" cases based on an end of day process.

- **Admin Web Site. Distribution Auto Log**. Created this report to allow for reporting on the number of times that the distribution automatic interface job has run, the timing, etc.

- **Admin Web Site. Multiple Piece Maintenance. Show RecordNumber**. Added a check box to the top of the web page to allow for the display of the multiple piece record number to support sites that need to create multiple piece bar codes.

- **Admin Web Site. Distribution Auto Exceptions Report**. Created this report to show the exceptions that have occurred by the auto distribution robot when this feature is used.

- **Admin Web Site. Distribution Auto Daily Report.** Created this report to provide the detailed view of data from the auto distribution process. This data gets "rolled up" to a summary view.

- **Admin Web Site. Distribution Auto Summary Report**. Created this report to provide visibility to the summary level of data that is generated by the auto distribution "robot". This is the summary table indicating the actual results of the auto distribution project and is used by the distribution module to determines how cases get routed. This report provides visibility to the data set.

- **Admin Web Site. Distribution Auto Audit Log**. Created this audit log to show exactly how the auto distribution robot created the summary table at an accession level. The report can be used to verify the operations of the process and provides detailed analysis of business rules such as specimen type exclusions and doctor licensure to better enable credentialing personnel to make better decisions about specimen/pathologist mixes in staffing.

- **Issue Tracking. Standard Icon buttons**. Added the standard picture/icon buttons to the issue tracking (help desk) screens inside Assist to make more visually compatible with the other modules.

- **Issue Tracking. Description inclusion in detailed grid**. Added as much of the issue tracking description into the detailed grid as would fit to give a better idea of the issue when looking at the list. Also added a free form notes field in the criteria to filter by issue description wild card matches.

- **Issue Tracking. Selection Criteria Priority**. Added the priority to the selection criteria in the issue tracking module to allow for the filtering of specific issue priorities.

- **Sample Testing – Specimen Order Tab.** Testing sites were not defaultiing correctly by business unit. Corrected this to have the screen default correctly.

- **Sample Testing – Specimen Order Tab**. Holding Site Maintenance Disable Fields. Multiple fields on the holding site maintenance screen were

confusing to some sites that do not use those fields. Added configuration choices to disable these fields.

- **Sample Testing – Specimen Order Tab**. Duplication Communcation Log Notes. Found a scenario where the communcation log notes could get duplicated when notes were entered BEFORE going to the test ordering screen. Closed this loophole.

- **Sample Testing – Specimen Order Tab**. Email Library automation. Added the ability to launch pre-formatted emails directly to the email client of choice (ex. Outlook) based on formatted emails much like the attachment library where the email has variables that fill in from the active order.

- **Sample Testing – Specimen Order Tab**. Days left column reset. The days left column was getting reset to zero when a specimen order was saved even if the steps were not changed. It was resetting the number each time to give an artificial deadline extension. Stopped this from happening and only change the number of days left when a step changes.

- **Admin Web Site – Business Unit Step Email Maintenance**. Created this screen to allow for the mapping of business units, specimen order steps, and email library items. This provides the ability to tie the email library into specimen order steps by business unit to customize standard email forms but to do so by BU in case an Assist instance is used by a single organization with multiple business units in the same database.

- **Admin Web Site – Communication Log Audit Log**. Created this report to provide an audit log of all of the communication log activity that has been done during the processing of specimens and the capture of communication events.

- **Admin Web Site – Equipment Concentration Interface Report**. Created this report to allow for reporting over the equipment concentration interface transactions that have been performed. This interface is inside the sample testing module on the PCR laboratory tab.

- **Admin Web Site – Distribution State Priority Maintenance** – Created this maintenance screen to allow for the maintenance of state codes along with a priority value. This data is used in the auto distribution algorithm to allow

for certain client states to be prioritized at a higher value when performing auto distribution in case their is limited doctor licensure to read the cases (i.e., distribution them first so that the eligible doctors are not consumed from a quota perspective on other states).

May 2023

- **Universal Cassette Queue – Quantity Column**. Added the cassette quantity to the cassette queue grid so that the number of cassettes to be printed by an individual row is visible.

- **Universal Slide POU – Client Accession Tracking**. Added logic to write to the client accession tracking table when processing PC/TC client private labelled slides so that a cross reference can be kept of the number of client blocks processsed along with any cross reference back to company LIS accession to be used for ensuring block counts and billing reimbursement.

- **Universal Cassette Queue – Hide Instructions and Quantity options**. Added logic to provide for the suppression of the Instructions and quantity.

- **Universal Slide POU – Client Accession Tracking Logic**. Added extensive logic to allow for additional parsing rules to be called and processed when working with block that originated from outside of an organization (i.e., a client block). Often the rules for these objects do not match the internal rules where the bar codes can be controlled and this new logic algorithm allows for some "out of the norm" rules when handling. This provides laboratories with greater flexibility when absorbing technical component work.

- **Legacy Scanner Engine – Client Accession Tracking Logic**. Added logic to the legacy scanning engine (typically Microtomy) to allow for the successful scanning of client blocks utilizing the new client accession tracking logic and any matching slides that were printed under the same ruleset.

- **Admin Web Site – Accession Prefix Maintenance. Client Prefix Checkbox** – Added this checkbox to the screen to allow for marking an an accession prefix as being a client accession prefix as opposed to an internal use. This allows for different parsing rules when processing the bar codes.

- **Admin Web Site – Client Accession Prefix Maintenance**. Multiple fields associated with parsing a client accession number for received blocks were added to the screen.

- **Accessioning – Not Specified Specimen Type**. If a specimen had a type associated to it, and a subsequent scan was performed with a specimen type of "not specified" the original value was left in the database and was not getting removed. Corrected this and also wrote the delete transaction to the audit log for traceability.

- **Universal Module – Protocol Display (Brain Button).** Was suppressing from view any slide that was configured as a blank slide. Modified to show the text "No Instruction" if a blank slide is going to print as part of the protocol package.

- **Accessioning Module – Specimen Type Changes. MultiCassette Choice**. Added logic to the Accessioning module when writing to the specimen type tracking table to include the cassette identifier (i.e., part) or not.

- **Accessioning Module – Specimen Type Clear on Save**. Added a configuration choice to the accessioning module to allow for the specimen type to clear as each specimen is processed or to stay in place.

- **Distribution Module – Client Accession Tracking Logic**. Added extensive logic to the distribution module to allow for the processing of client blocks/slides for PC/TC work compatibility using the new logic that was put in place at other data collection points in the Assist workflow. This allows for the customization of the parsing engine to support bar code logic that does not match the internal parsing logic of the normal lab bar codes.

- **Distribution Module – Sequence Addition and Manifest Inclusion**. Modified the distribution module to write the sequence number into the database if relevant and also included the ability to print the sequence number on the manifest.

- **Main Scanner Engine – Embedded Specimen Type Scanner Capability**. Added logic to allow for the scanning of specimen type bar codes when the specimen type override view is displayed. Previously, the scanner was de-

activated when this view was displayed which meant selections had to be made using the mouse.

- **Quality Module Manufacturing – Screen Error Traps**. Added detailed error traps into the manufacturing quality module to provide extended troubleshooting when an error is encountered. With all of the interfaces and image processing done by this module, it provides extended error messaging to help support personnel in determine the cause of issues.

- **Admin Web Site – Image Review. Delete Button Changes**. The delete button did not work if the actual image was no longer at the location represented by the UNC path on the image view. If the images have been physically purged or corrupted, there was no way to remove the placeholder from Assist. Modified to still allow for deletion in the event that the file was not actually present at the location.

- **Quality Module Manufacturing – Login Screen. Standard Buttons**. Modified the screen to use standard picture buttons instead of words to be compatible with other modules.

- **Admin Web Site – Client Accession Tracking Report**. Created this report to provide visibility to the client accession tracking information that is part of the technical component/professional component logic built into Assist to support laboratories that product slides for outside entities. It provides tracking of the objects received and what objects (typically slides) that got produced for the client.

- **Sample Testing. Receiving Tab**. Slide label print with client accession. If the client accession (i.e., alias) had part information specified that needed to print, it was set to print on seperate x/y coordinates from the alias/client accession which made it challenging to line up correctly. Added a configuration flag to append the specimen/part to the accession number to make the data more visually appealing.

- **Sample Testing – Cytogenetics Tab.** Cell Count settings apply all. Changed the logic on the feature where the cell count and volume settings apply across all cultures on an accession. Changed the logic so that this is still true but only if the culture type is not an enrichment culture type.

- **Admin Web Site – Culture Type Maintenance**. Drop Prep and Enrichment type checkboxes. Added these two checkboxes to the maintenance screen to allow for the specification of what kind of culture type is being created/maintained so that different algorithms can be processed based on the culture type.

- **Admin Web Site – Client Accession Print Log.** Created this report to provide visibility to the client accession objects that have been printed. This is part of the Processional/Technical component logic built into Assist. This is a listing of the slides (typically) that are printed based on client blocks.

- **Doctor Module – Tab Order Logic.** Changed the way that tabs are called from a hot key perspective. The actual tab names are used to identify the correct tab page number rather than calling based on the numbers which could cause issues if tab order was changed around.

- **Admin Web Site – Doctor Maintenance**. Doctor Schedule Maintenance. Capacity Percentage. Added this field to the doctor schedule screen to allow for an indication of a doctor not working a full load for a day (i.e., taking a half day) as part of the new auto distribution logic.

- **Admin Web Site – MFG Case Status Maintenance** – Created this screen as part of the manufacturing section of Assist. This allows for the status of a case to be tracked and have values mapped to multiple LIS platforms to tie status values together.

- **QC Module Out. LIS Status Check Interface**. Added logic to the manufacturing quality module to check for a status inside the LIS using the status cross reference table. This was done to provide visibility to the fact that a case that is actively being worked on in the faciity may have been cancelled or held in the underlying LIS or ERP system.

- **Admin Web Site – Distribution Auto Summary Maintenance**. Created this screen to allow for direct maintenance/intervention over the data created by the auto distribution robot. This allows for overrides of data when a situation has changed from when the AI processed what doctor should get what cases for processing.

- **Admin Web Site – On Call List Maintenance** – Created this screen to allow for the maintenance of on call lists. This is part of the feature set that allows for the various Assist screens to provide visibiity of on call information to reduce the amount of printing of call lists for the facility.

- **Admin Web Site – Interface Type Maintenance**. Add Last Record, Last Date, and LIS. Added the last record number, last date value, and LIS fields to the interface type maintenance screen to allow for improved functionality with some of the interface jobs controlled by the various Assist interface robots. By providing both record number and date, the data migration/replication jobs can process data based on either methodology.

- **Admin Web Site – Interface Transaction Type Maintenance** – Created this screen to provide the ability filter/categorize the interface records into transaction types (i.e., A – Add, P – Purge, etc) as needed by the various interface engines.

- **Admin Web Site – On Call Area Maintenance** – Created this screen to allow for the maintenance of on call areas. This is part of the new feature in the Assist modules to show call lists for employees. Call areas represent an area of company (ex. Maintenance, Security) for which contact information needs to be made available to staff.

- **Admin Web Site – On Call List Details Maintenance** – Created this screen to allow for the maintenance of on call detail information. This is part of the new feature in the Assist modules to show contact information for whom to contact when there are problems. This is the lowest level of data and includes names, phone numbers, email addresses, etc.

- **Robot – Distribution Auto Interface**. Modified to include doctor percentage capacity logic. Modified the AI engine for the automatic distribution robot to include doctor filtering by percentage of capacity. Added functionality to allow this to be done by standard percentage all the time for a doctor vs. a percentage override for a specific calendar day (ex. Working a half day).

- **Admin Web Site – Distribution Auto Audit Log**. Case totals and percentage. Add the case totals, percentages and total cases to the audit log for the automatic distribution AI robot to make the data more meaningful.

- **Admin Web Site – Distribution Location Maintenance**. Default Case Percentage. Added this field to the maintenance screen to allow for the specification of a default case percentage to assign for a doctor. This value is used by the automatic distribution AI robot when determining how to assign cases to doctors.

- **Admin Web Site – Doctor Schedule Maintenance**. Default Schedule Percentage. Added this field to the maintenance screen to allow for the specification of an override percentage to be used for a doctor on a specific day. This value is used by the automatic distribution AI robot when determining how to assign cases to doctors.

- **Admin Web Site – Distribution Auto Doctor Report** – Created this report to provide summary level visibility to the automatic distribution assignment of cases to doctors by the AI robot.

- **Admin Web Site - Equipment Interface Maintenance** – Acknowledgement File Suffix. Modified this maintenance screen to allow for the entry of a seperate file suffix filter just for acknowledgements. This allows the interface return files to be in the same directory as the send files without there being an issue.

- **Sample Testing – FISH Tab. Batch Status**. Added the batch status to the grid and added color coding to make them easy to stand out. Also added the FISH batch status to the selection criteria in order to filter the data being displayed.

- **Sample Testing – FISH Tab. Batch Dropdown**. Added color coding to the drop down to indicate open vs. pending. Added all "non-closed" values to the drop down. Added functionality to the status drop down in the change area to be used as either criteria or the save status.

- **Admin Web Site – Distribution Auto Detail Maintenance**. Created this screen to allow for direct maintenance/intervention over the data created by the auto distribution robot. This allows for overrides of data when a situation has changed from when the AI processed what doctor should get what cases for processing. This is at the detail level before case summarization has been performed.

- **Admin Web Site – Distribution Auto Exception Summary.** Created this report to provide summary level counts of the exceptions that were generated by the auto distribution AI robot so that management decisions can be made regarding licensure, case type/specimen mixes, etc.

- **Admin Web Site – Distribution Auto Not Assigned.** Created this report to provide visibility to the accession number records that have been generated by the AI distribution robot but that have not been distributed.

- **Stain Queue – Assist Activation Error.** The stain queue did not have a message indicating a warning if an activation record was not found. Added a message to better troubleshoot when a configuration is not set correctly.

June 2023

- **Universal Slide POU. Upper Case Protocols**. Added logic to allow for two configuration flags to print the human readable in upper case only for the protocol and also for the value that goes into the bar code.

- **Admin Web Site. Distribution Auto Summary Report**. Added Distribution date, active flag, and distributed doctor to this report.

- **Admin Web Site – MFG Task Bundle Maintenance**. Modified this screen to allow for a retrieve of all bundles without having to know an existing one. Previously, you had to specify a task before clicking retrieve instead of being able to see all of them.

- **Universal Cassette POU – On Call Information**. Added a on call button to the cassette POU screen that will show all of the "on call" phone numbers defined for a site. This can be used to eliminate the need for on call lists of paper printed out in the laboratory.

- **Universal Slide POU – On Call Information**. Added a on call button to the slide POU screen that will show all of the "on call" phone numbers defined for a site. This can be used to eliminate the need for on call lists of paper printed out in the laboratory.

- **Sample Testing. PCR Tab Concentration Entry**. There were issues with the concentration values when performing manual overrides/saves. Modified

the logic to allow for specification of which value is being manually updated and added logic to handle overrides.

- **Sample Testing. Receiving Tab. Doctor Order Review (magnifying glass).** When this button was clicked to display the doctor order listing, the sequence number was not visible for either the doctor orders or the sample testing orders (before doctor order generation). Added the sequence to both grids.

- **Sample Testing. Receiving Tab. Order Generation Audit trail.** The order master audit trail was not getting created when a "doctor order" was created using the sample testing module. The audit data is generated when orders are submitted from the interfaces, doctor module, or closeout screen, but there was an exclusion from Sample Testing which made research challenging if all of these modules are in use in a facility. Added this auditing step.

- **Universal Slide POU. Doctor Order Grid. Sequence Number visibility.** The sequence number was loaded into the doctor order grid, but was not visible. Modified the screen load to show this "S" column.

- **Sample Testing. Receiving Tab**. When a template is specified, it was assuming that the sequence should start at 1. If individual material had been specified before the template or if two or more templates were utilized, the sequences would be duplicated on the same specimen. Modified the template addition to look for the last selected sequenece number to start the next number.

- **Sample Testing. Receiving Tab. Default Printers.** The configurations settings for the default block and unstained slide were the same. Created a new configuration value of "DefaultBlockPrinter" so that the block printer default can be specified without impacting the unstained slide value.

- **Sample Testing. Receiving Tab. Material Order Pop Up Screen**. Modified the deletion button press to verify that doctor orders have not already been generated. If orders have been generated, throw an error to the screen to notify that the orders need to be cancelled for verification that the specimen is not already being worked in a different part of the lab.

- **Sample Testing. Receiving Tab. Delete All Option**. Modified this check box associated with the delete button to allow for a full delete of all material against a sample. This can only be done if no orders have been generated against the material order. If orders have been placed, the steps must be taken to ensure no one is working on the order and it is cleared using the order modification pop up screen.

- **Sample Testing. PCR Tab. Vial Label Printing**. The notation values specified against an existing PCR extraction order was causing the notation portion of the bar code to repeat if the label count was greater than one, which made the bar code size increase. Fixed this issue to only reflect the notation once in the bar code.

- **Sample Testing. PCR Tab.** Extraction View order type duplication. When notations were used against a single PCR order, the data in the grid was repeating for each extra notation (i.e., N1, T1, etc.) This was causing a many to many join situation and was causing odd behavior when listing the order type and printing.

- **Sample Testing. Specimen Ordering. Email Library**. When the email prompts were being passed into the email program of choice (ex. Outlook), the preformatted email messages were getting set as all upper case regardless of how the data was entered into Assist. Corrected this issue.

- **Sample Testing. Specimen Ordering. Attachments Library**. When using the interactive forms logic, the various variables were getting set as all upper case regardless of how the data was entered into Assist. Corrected this issue.

- **Sample Testing. Specimen Ordering. Holding Site Maintenance**. Added red asterisk values that can be controlled via the configuration to mark various fields on the screen as mandatory.

- **Sample Testing. Specimen Ordering. Email Library Functionality**. Modified the email library to include a feature to filter form emails by business unit or an "always available" flag.

- **Admin Web Site – Case Hold Reason Maintenance**. Production Hold checkbox. Added this checkbox to the maintenance screen to provide the ability to note a case hold reason as one that would halt production.

- **Admin Web Site – Email Library Maintenance**. Always available and default business unit. Added these two fields to the maintenance screen to allow for filtering of the email library by business unit and to allow for always present members of the library.

- **Sample Testing – Shipping Tab**. Not all objects showing. Found an issue where if there was a duplicated object (i.e. same block twice) that the routine to load the details available for return was getting exited without displaying all of the details. Fixed this issue to ignore the duplicates and keep loading subsequent information.

- **Admin Web Site – Tissue Size Maintenance. Case Hold Reason**. Added a drop down for the specification of a case hold reason to be associated with a tissue size value. This can be used to automatically put cases on hold based on the tissue run they are on.

- **Admin Web Site – Tissue Size Maintenance**. Moved this maintenance screen into the equipment category of the maintenance area to logically group the screen with the function.

- **Admin Web Site – Accession Usage Report. Detail View. Most Recent Date**. Added a "most recent" date field to this report to show the last scan date/time for an accession number.

- **Sample Testing. Receiving Tab. Order Generation**. Added two new fields when creating doctor order records to capture the configuration number of the sample testing module (in case there are more than one) and the configuration code to allow for discernment of the sample testing module vs. other methods of generating a doctor order (i.e., doctor module, closeout, universal, etc.) to provide more advanced audit trails.

- **Universal Slide POU. Loading Submitted Testing Routine.** Modified this routine to write to the doctor order audit table when a record is pulled directly from the submitted testing database and added the fields for where the data came from and the configuration.

- **Admin Web Site. Doctor Order Audit Report. Sequence Number**. Added the sequence number to this audit report.

- **Admin Web Site. Order Master Audit Report. Sequence Number**. Added the sequence number to this audit report.

- **Admin Web Site. Doctor Order Listing**. Added the sequence number to this report. Also combined the various accession number related fields into the single "full accession" field. Cleaned up the selection criteria section of the screen to be more visually appealing. Changed the sort order to show by date, then accession.

- **Admin Web Site. Material Submission Report**. Created this report to provide visibility to the high level information regarding material submissions. The report includes the date/time of the "package" header, the material records and any testing assigned to the materials.

- **Universal Slide POU. Auto Generate Doctor Orders**. Modified this routine to write to the doctor order audit table when a record is pulled directly from the submitted testing database and added the fields for where the data came from and the configuration.

- **Sample Testing. Receiving Tab**. Material detail save and specimen type. The screen was writing "empty" specimen type tracking transactions if no specimen type was specified. This was not really causing any issue but was generating unneccessary data. Elimintated the transaction if no specification has been made.

- **Universal Slide POU. Generate doctor orders from material submission issue.** There is a routine in the universal slide that looks at the material submission testing for any orders that should be processed but were not generated in the sample testing module. This was intended to be a "failsafe" for forgetting to press the "generate orders" button in the sample testing module. BUT, the routine did not factor in the material types that have the "suppress orders" check box set and were pulling forward orders for materials that should be skipped. Resolved this to work as expected and factor in this flag.

- **Sample Testing. Object Conversion Tracking Logic**. Found a flaw in the object conversion tracking logic. The check to see if an object was already in existance was not operating correctly causing the number of objects to become higher than it should. Resolved this issue.

- **Sample Testing. Fish tab. Screen reload button.** Added a button to the screen to allows for wiping out changes to the selection criteria and take them back to screen load.

- **Check In Module. Day End Status Button**. Added a visual button to the screen to reflect the last day end transaction (based on day end type) to provide visibility for check in operators of the status of day end.

- **Check In Module. Tissue Run Auto Case Hold**. Added logic to pull into the tissue size drop down the indication of whether or not a tissue run should put the accessions placed on the run into automatic case hold based on the reason specified on the tissue size maintenance screen.

- **Check In Module. Case Hold Automatic Addition**. Added logic to the check in process to automatically put all cases on a tissue run onto case hold if the tissue run selected was an automatic case hold run. If a case hold is already in place for the same reason, it will be removed before a new one is put back (to establish an accurate timeline). A write will be done to the active case hold table as well as the history audit log.

- **Check In Module – Automatic Timer Countdown Close.** The only vehicle for marking a tissue processor run as complete has historically been the scoreboard countdown timer. Not all sites use this module. Added functionality to the main module when the processor history checkbox is loaded to close all runs that are beyond their end time. This does NOT mark them as unloaded, just as finished. It will come up to two days past to get historical OR the actively selected batch.

- **Check In Module – Automatic case hold removal**. Added logic to automatically remove any case holds that were placed on the accessions in a tissue run by the process of loading the tissue run discussed above.

- **Check In Module – Case Hold Button**. Added the "standard" case hold button to this module. Provided the ability to turn case holds on and off via

the screen. Set the case hold reasons up to respond to scanned codes instead of pure drop down.

- **Check In Module – Existing Case Hold Processing.** Modified the logic of this module to check for case holds at object scan (ex. cassette). If hold is found, turn the case hold button red, make a beeper error sound and launch the case hold screen view with the existing case hold shown in the drop down (and disabled) with the "delete" as the only choice. These settings are all in the configuration for change as needed.

- **Scanner Module – Case Components Screen Size**. Widened the screen to allow for less horizontal scrolling of the case components area.

- **Scanner Module – Case Components Information Changes**. Modified the case components logic to allow for the tissue processor run information to be broken down into the various components and added as child "nodes" to the tree and collapsed them to the parent level. Processor batch, tissue run, equipment, run count were added as children.

- **Scanner Module – Case Components Information Additions**. Modified to add pieces to the tree. This was also available underneath the main section of the screen but included it into the tree so that the piece counts of all specimens in the accession could be seen at the same time if needed.

- **Scanner Module – Login Screen Buttons**. Modified the buttons to be the standard size and to be icon buttons instead of text buttons to be standard with the rest of the module.

- **Scanner Module – Case Components Information Additions**. Case Hold Information. Added case hold transactions to the tree so that visibility would be provided to show why a portion of a case might not be available with the other components. All case hold transactions are visible.

- **Scanner Module – Case Components Information Case Hold Headers**. Placed the literal values for the case hold "tree" into the configuration for simply tweaking. Also added color coding to the release vs. hold on the case details.

- **Scanner Module – Standard Image buttons**. Continued the process of converting more "text buttons" to be the standard image buttons to increase consistency.

- **Scanner Module – Case Hold Screen**. Include Cassette Checkbox default. There was no setting to allow for the defaulting of the checkbox for including the cassette identifier on the case hold screen. Added this.

- **Scanner Module – Case Components Information Changes**. Added the ability to include embedding information in the "tree" as well.

- **Admin Web Site – Recipe BOM Listing**. Created this report as part of the inventory functional area to provide visibility to the list of "recipes" and their bill of materials. These can be finished goods recipes or sub assemblies.

- **Admin Web Site – Material Type Maintenance**. Lock Material After Hours. Added this checkbox to allow for "locking" a material type to not allow delete at the point that it has had orders placed against it. This prevents the deleting of a paraffin block after hours have been submitted to the lab.

- **Sample Testing Module. Receiving Tab**. Material Submission Audit Log. Added a new audit log table to the database and put write transactions in place for every add, update, or delete to a submission so that a data "chain of custody" audit trail exists.

- **Admin Web Site – Material Type Group Maintenance**. Created this screen to provide for maintenance over material type groups. These groups are used to categorize material types by the "sub labs" they may go into for filtering purposes (Ex. PCR, FISH, etc.)

- **Admin Web Site – Material Type Grouping**. Created this screen to provide for the association of material type groups with material types. This allows for better filtering of material types to reflect only the items that should be in use inside specific functional areas of a facility.

- **Sample Testing – Receiving Tab. Detail Delete**. Modified the delete routine to not allow the deleting of material types with the lock value checked (#2)

if doctor orders have been generated even if not for the individual object being deleted.

- **Sample Testing – FISH Tab. Material Type Grouping Criteria**. Added the material type grouping to the selection criteria and added logic to use this in retrieving specimen orders.

- **Stain Queue – Manual Entry**. Found an issue with the location identifier for sites using the Pathway LIS where the year was getting left off the location identifier on a manually typed entry. Correct this issue.

- **Interface Utility – Case Components Robot.** Previously, the case components robot only looked at "transaction" data (i.e., Grossing, Embedding, Microtomy, etc.). Modified the routine to also consider distribution and equipment tracking (check in) to give a better view of objects.

- **Doctor Closeout – New Fields**. Added new fields to the closeout including the source of the orders and the configuration number of how the screen was built when the order was written. Also standardized the screen buttons to be icon buttons instead of words to be consistent with the other Assist modules.

- **Doctor Module – New Fields**. Added new fields to the doctor module ordering including the source of the orders and the configuration number of how the screen was built when the order was written. Also standardized the screen buttons to be icon buttons instead of words to be consistent with the other Assist modules.

- **Sample Testing – FISH Tab. Batch Type/Order Type Filter**. Added a checkbox to the screen (based on configuration) to allow for a filter of FISH orders based on the batch type/order type grouping maintenance screen. This can be used in conjunction or instead of the material type grouping to derive the needed list of FISH orders.

- **Admin Web Site – On Call Report** – Created this report to provide visiblity to the on call information (i.e. call lists, after hours, etc.) that can be entered into Assist and be viewed in the various module.

- **Check In Module. Case Components Logic**. Added case component tracking logic to the check in module. This is logic that keeps track of the last touch point for a specimen/object and was previously only written by a robot job.

- **Admin Web Site. Case Hold Reason Maintenance. Show Record Number option**. Added this check box to the screen to allow for display of the database record number to help with making custom bar codes.

- **Admin Web Site. Timer Countdown Report. Case Hold Reason**. Added the case hold reason to the report to reflect automatic case holds that exist on timer countdown data.

- **Admin Web Site. Case Components Tracking Report. New Fields.** Added the sequence number, deactivated by record, and DBTableCode fields to the report.

- **Quality Module Extended. Auto Update Feature.** Made some fixes to the quality module auto update feature to ensure functionality and also to capture the prior and current date/time stamps of the executable into the installation history reporting.

- **Admin Web Site. Software Installation History Report**. Added fields for the original and updated software executable to this report and also added the installation message (i.e., success or failure).

- **QC Module Extra – End Task Button**. Added this button to the screen to allow for the explicit ending of an open task without requiring the existence of the end task bar code.

Third Quarter 2023

July 2023

- **Sample Testing. Cytogenetics tab**. The "Suppress" closed checkbox in the selection criteria was not working correctly. This was fixed.

- **Sample Testing. Cytogenetics tab.** Grid default view. The status value for specimens that have not been worked yet were showing with a blank status column. Changed the "no status" value to be "None" rather than an empty

cell in the grid for better clarity. Did the same thing for the culture date if there is no date because the culture has not been created yet.

- **Sample Testing. Cytogenetics tab.** Selection criteria changes. Added a "suppress closed" checkbox for the culture status (order status already existed) to add more flexibility. Set this checkbox to "off" by default.

- **Sample Testing. Cytogenetics tab**. Culture Tracking and Audit Log Changes. Added several fields to the culture tracking and audit log tables to make the audits more meaningful in regard to where data came from with the new data specifically being the computer name and the software version.

- **Sample Testing. Cytogenetics Tab**. Audit log clearing. Noticed when working with the cyto tab that when switching accession numbers that the audit log was not clearing on the click of the retrieve button which could make the screen confusing as the audit trail from a prior record was being displayed. Now the grid clears on retrieval.

- **Admin Web Site – Culture Tracking Audit Log**. Modified the report to include the machine name and software version that made the changes.

- **Admin Web Site – Culture Tracking Report**. Modified the report to include the machine name and software version that made the last change to the data.

- **Sample Testing – PCR Tab.** Vial label print with multi part information. The specimen letter was not printing in either the human readable OR bar code. Added configuration options to print or suppress these values as needed.

- **Admin Web Site – Equipment Tracking Analysis Report** – Batch Number Criteria. Added the batch number to the selection criteria to allow for improved data filtering.

- **Admin Web Site – Timer Countdown Report** – Batch Number Criteria. Added the batch number to the selection criteria to allow for improved data filtering.

- **Admin Web Site – Equipment Tracking Report** – Batch Number Criteria. Added the batch number to the selection criteria to allow for improved data filtering on both the summary and detail version of this report. Also added

the batch number to the report. Added formatting to the full accession number to add dashes to make the report data more visually appealing.

- **Check In Module – Auto Batch Close**. Added logic to the check in routine to determine whether or not a check should be performed for open processor batches. If any are found with an end date less than the current date, they are closed. This feature should only be activated if the "unload process" is not being used to indicate when a processor run batch should be closed.

- **Admin Web Site – Specimen Category Maintenance**. Category Metric Value. Added this value to the specimen category maintenance screen to make the information available in automatic distribution. This value can be used instead of or as an adjunct to the metric values that can be specified at the specimen type level.

- **Universal Cassette POU. Case Hold Changes**. Modified the case hold entry screen to include comments and reorganized the screen to be more logical.

- **Universal Cassette POU. Case Hold Reason Scanning.** Added logic to allow for the scanning of case hold reasons. If this is scanned from the main grossing screen, it immediately presents the case hold screen as if the button were pressed and positions the case hold reason drop down to the bar code value scanned.

- **Universal Cassette POU**. Requisition Switch with no bottle. Found a couple of visual changes that needed to be made with how the error condition is handled when a second requisition is scanned after the first with no child scan. Modified the error reset on no error inside requisition to clear the screen.

- **QA Out Module**. Task Being rejected error. There was a problem inside the routine for loading rework data to the screen that was causing an erroneous message of "Taks does not exist for the selected MSP". Fixed this issue.

- **QA Out Module**. Clear rework data on new case. Found an issue where the rework tab was still showing information from a prior case if there was no rework data on the current case. Set the retrieval routine to clear the screen before attempting to load new data.

- **QA Out Module. Rework Audit Log Capture**. Added logic to the rework request process to introduce an audit trail capturing all of the rework request transactions to see all of the changes over time.

- **QA Out Module. Rework Audit Log Toggle**. Added a toggle choice to the rework screen to provide for display of rework request active data as well as providing visibility to the new audit log data to see all of the transactions associated with the rework request.

- **Admin Web Site – Doctor Schedule Override Maintenance** – Created this screen to allow for the specification of schedule override information for doctors in terms of workload quotas and such for sites that take advantage of distribution limitations.

- **Admin Web Site – Rework Reason Audit Log**. Created this report to provide visibility to the newly created rework reason audit log.

- **Admin Web Site – Client Accession Prefix Maintenance**. Sample bar code and comments fields have been added to this maintenance screen to allow for entry of the bar code that the prefix is designed to handle. Comments are also provided to allow for a detailed description.

- **Admin Web Site – Equipment Tracking Analysis Report**. Run Start/Run End columns. Added these two columns to the report to provide additional information.

- **Admin Web Site – Material Submission Audit Log**. Created this report to provide visibility to the detailed audit log that is written to any time a material submission record is modified.

- **Universal Slide POU – Order Master Update Changes**. With the routine that automatically prints doctor orders at cassette scan, it was discovered that the status was changing but the last changed user/date fields were not getting modified and no record was getting written to the audit log to reflect the status change. Corrected this to record both.

- **Sample Testing - FISH Detail Audit Log**. Modified the FISH tab so that the transactions adding accession to and removing from batches go into an audit log for more detailed tracking.

- **Sample Testing – FISH Tab Audit Log**. Added an audit log tab to the FISH batch details area to show full audit trail information in regard to FISH batches.

- **Admin Web Site – Doctor Schedule Defaults Maintenance**. Created this screen to allow for the specification of default values of case capacity and case metrics for a doctor with an effective start and end date. While capacity values can be specified at the distribution location level, this allows for an effective start/end of default changes from the values for the doctor in general.

- **Check In Module. Software Time Stamp**. Modified the check in write to the equipment tracking table to include the executable date/time stamp to help in determining version information.

- **Universal Cassette POU**. Case Hold Functionality Changes. Added logic to how the case hold functionality works. Added the ability to look at the production hold vs. "information only" case hold information. Also provided detailed ability to view all of the case hold information on the case hold view rather than just the description (ex. WHO put the case on hold and WHEN).

- **Accessioning Module. Software Time Stamp**. Software Time Stamp. Modified the check in write to the equipment tracking table to include the executable date/time stamp to help in determining version information.

- **Admin Web Site – Equipment Tracking Analysis**. Modified this report to sort by tracking start date if "include date" is selected rather than just by the date without the time stamp to make the data show in true chronilogical order.

- **Accessioning/Opening Module. Login Panel standard buttons**. Modified the login and cancel buttons to be standard picture buttons.

- **Admin Web Site. Client Accession Prefix Maintenance**. Delimiter Package Drop down. Added this drop down to the maintenance screen so that delimiter packages can be specified for specific client prefixes to handle technical component work.

- **Admin Web Site. Delimiter Package Maintenance**. Comments field addition. Added a free form comments field to the screen to allow for a detailed description to be entered to explain the purpose of the delimiter package.

- **Distribution Module. View Options Grouping**. Added a view options group box to the upper right-hand corner of the screen. This view option will provide additional choices between manifest view, auto distribution views, etc. to meet the increased demand for viewing options.

- **Distribution Module. Manifest Printing Area**. Reorganized the manifest printer choices to make them more visually appealing and decreased the font size to allow for more information to be displayed on the screen. This was also done in anticipation of adding alternate printer choices to the screen.

- **Distribution Module. Alternate Printer Logic**. Added a second printer and checkbox to the manifest printing area. This allows for the specification of an "alternate" printer. This was done to simplify the transactions for users that wanted to print a physical copy of a manifest to a paper printer as well as an electronic copy to a fax printer and/or PDF printer without having to go through a reprint process.

- **Sample Testing. Tracking Tab**. Reorganized several cosmetic items on the tracking tab to have the screen make more visual sense. Added defaults to the view choice between transactions and zone scan information. Added accession information to the selection criteria to allow for better filtering. Added a check to make sure an employee is logged in before allowing data retrieval.

- **Sample Testing. Tracking Tab**. The zone scan side of the tracking tab was already operational and working fine but the transactional side of the inquiry was not in place. Added the ability to display transactions from a chain of custody standpoint over the main transactional audit log.

- **Sample Testing. Tracking Tab**. Extended the transactional scanning data stream to include equipment tracking (ex. tissue processors and other

equipment loading touchpoints) to provide more in depth information on the chain of custody information on a specimen and/or accession.

- **Sample Testing. Tracking Tab**. Extended the transactional scanning data stream to include distribution data (ex. doctor slide distribution, send outs) to provide more in depth information on the chain of custody information on a specimen and/or accession.

- **Sample Testing. Tracking Tab**. Extended the transactional scanning data stream to include warehouse data (ex. banking) to provide more in depth information on the chain of custody information on a specimen and/or accession.

- **Accessioning Module**. Default cassette identifier specimen type tracking. Found an issue where the "type" of cassette identifier flag "A/N" was getting written into the specimen type tracking table, which was not valid. Corrected this to be the value "A" or "1" if data is written and implied values are in play.

- **Admin Web Site – Block Slide Instructions Maintenance**. Description criteria. Added a description criteria field to allow for the filtering of data ont he screen by wildcard character matching.

- **Accessioning Module – Case Hold Functionality Changes**. Added logic to how the case hold functionality works. Added the ability to look at the production hold vs. "information only" case hold information. Also provided detailed ability to view all of the case hold information on the case hold view rather than just the description (ex. WHO put the case on hold and WHEN). Brought this feature set up to the same standard as the universal module for grossing to be consistent.

- **Accessioning Module – Case Hold Reason Scanning**. Added the ability to scan case hold bar codes to select the appropriate case hold reason from the dropdown listing when the case hold panel is visible.

- **Scanner Engine – Case Hold Functionality Changes**. Added logic to how the case hold functionality works. Added the ability to look at the production hold vs. "information only" case hold information. Also provided detailed ability to view all of the case hold information on the case hold view rather

than just the description (ex. WHO put the case on hold and WHEN). Brought this feature set up to the same standard as the universal module for grossing to be consistent.

- **Universal Slide POU. Case Hold Functionality Changes**. Added logic to how the case hold functionality works. Added the ability to look at the production hold vs. "information only" case hold information. Also provided detailed ability to view all of the case hold information on the case hold view rather than just the description (ex. WHO put the case on hold and WHEN). Brought this feature set up to the same standard as the universal module for grossing to be consistent.

August 2023

- **Admin Web Site – Accession Slide Count Maintenance**. Special Stain Filter. Added a checkbox to the selection criteria to allow for filtering of special stains to allow for finding stains vs. recuts, deepers, etc. in a more timely manner.

- **Distribution Module – Inbound Manifest Logic**. Modified the logic of the inbound process to remove the manifest selection. Previously, if a manifest were active and inbound scans were performed, they got added to the manifest which was incorrect processing.

- **Admin Web Site – Employee Scan Rate Report**. Clear Employees Button. Added a "Clear" button to this screen to allow for the removal of all employee filters from the list box on the screen.

- **Admin Web Site – Block Slide Instructions Maintenance**. Protocol Magazine Override checkbox. Added this checkbox to allow for the specification of whether the block slide instructions record should override the protocol magazine for sites that have complicated slide magazine selection logic.

- **Admin Web Site – Object Storage Report**. Date of service and sort order. Added the date of service column to the report and provided the ability to sort based on this date of service field OR the transaction date (i.e., scan date) via a selection area.

- **Admin Web Site – Order Type Maintenance**. Order type deactivation check. Modified the order type maintenance screen to check to ensure that there are no active orders against an order type before allowing it to be deactivated.

- **Warehouse Module – Warehouse Inquiry**. Included the date of service field on the details section of the inquiry.

- **Warehouse Module – Warehouse Inquiry**. Free Form Accession Prefix Criteria. Added a checkbox to the inquiry to allow for the entry of free form prefix criteria instead on only having the choice of choosing from the drop down list.

- **Warehouse Module – Warehouse Inquiry**. Date of Service Criteria. Added the from/to date of service as a criteria option on the inquiry screen. Also added the field to main grid view and changed the accession number field to display as a formatted accession number rather than listing in each of the component parts.

- **Main Scanner Engine – Block Request Screen**. Standard Buttons. The batch block request screen did not make use of standard buttons for the print and cancel. Added the standard picture buttons to make the screen consistent.

- **Distribution Module – Manifest Utility** – Reworked this pop up screen to clean up the functionality of how to modify manifest data. The screen was simplified and changes were made to make the screen more visually appealing.

- **Distribution Module – Manifest Print Changes**. Modified the manifest print routines both from the utility screen and the main screen to include the protocol value for slides and to move around the layout in both summary and landscape mode to make the reports more visually appealing.

- **Distribution Module – Overdue Warning Button**. Added a "green/red" button to the top right hand section of the screen to reflect a count of objects that are overdue based on a configuration value for number of days. This reflects items send OUTBOUND with "RETURN EXPECTED" that have not been scanned back in via distribution or warehouse.

- **Scoreboard Module – Case Hold Scoreboard** – Created a scoreboard to show outstanding case hold records. Shows the total in the header and the most recent "X" active case holds with the "X" deteremined by configuration.

- **Scoreboard Module – Case Rush Scoreboard**. Created a scoreboard to show outstanding case hold records. Shows the total in the header and the most recent "X" active case holds with the "X" deteremined by configuration.

- **Admin Web Site – Distribution Location Maintenance**. Overdue Days. Added an overdue days text box to the distribution location maintenance screen to allow for the customization of the definition of an overdue case by distribution location.

- **Warehouse Module - Overdue Warning Button**. Added a "green/red" button to the top right hand section of the screen to reflect a count of objects that are overdue based on a configuration value for number of days. This reflects items send OUTBOUND with "RETURN EXPECTED" that have not been scanned back in via distribution or warehouse.

- **Sample Testing – Inbound/Outbound Tab**. Max Rows Addition. Added a row count box to the screen to add a "maximum" number of rows that can be returned to prevent a huge amount of data being requested and locking up the screen.

- **Admin Web Site – Object Storage Transactions Report**. Date Of Service. Added the date of service column to this report. Also modified the layout of the report to remove the component parts of the accession as showing seperately and added a single "full accession" column to the report.

- **Warehouse Module – Date of Service Capture on scan**. Added logic to the warehouse module to determine the date of service of an accession when it is scanned. This is determined by looking for the first scan transaction in Assist against the object being scanned to provide a date/time different from the time the object was scanned into the warehouse to determine when an object can be purged.

- **Warehouse Module – Object Type/Drawer Object Type Error Check**. Added logic on the main filing screen to make sure that when the object type is changed that the object type for the active filing drawer is the same as the object type of the object scanned.

- **Sample Testing – Case Rush Functionality**. Added logic inside the sample testing receiving tab to write case rush transactions into the database for case rush tracking and scoreboard functionality rather than just capturing in the material submission workflow.

- **Scoreboard – Order Cancellation Scoreboard**. Build a new scoreboard view for cancelled orders that can be displayed for other portions of the laboratory until the cancellation order is acknowledged to inactivate the cancellation transaction.

- **Admin Web Site. Order Status Maintenance**. Cancel Status Checkbox. Added this checkbox to allow for the stratification of an order status as being a cancellation. This will allow for the routing of order changes into the cancellation table.

- **Admin Web Site. Case Rush Report.** Last Maintained Information. Added the last maintained date and employee to the case rush report to provide a better audit trail and consolidated the accession number into a single column.

- **Admin Web Site. Case Rush Maintenance**. Last Maintained Information. Added the audit trail last maintained date and user to this screen. Also added the bottle/cassette identifier to allow for rush data to be specified at the specimen/part level.

- **Sample Testing – Receiving Header Save. Chain of Custody**. Modified the save routine for the header receiving package creation to write a record into the main Assist transactional table for chain of custody/Audit trail purposes.

- **Sample Testing – Receiving Detail Save. Chain of Custody.** Modified the save routine for the detail receiving package creation to write a record into the main Assist transactional table for chain of custody/Audit trail purposes.

- **Sample Testing – Flow Save. Chain of Custody**. Modified the save routine for the Flow package saves to write a record into the main Assist transactional table for chain of custody/Audit trail purposes.

- **Accessioning Module – Case Rush.** Added the last maintained date and user to the case rush database write routine to provide better chain of custody information.

- **Universal Module – Cassette/Slide POU**. Logout Logic. Modified the logout logic for sites that are using employee time tracking. If there are open time buckets, on logout, close the most recent abandoned bucket to keep from having odd time tracking issues.

- **Distribution Module. Case Hold Functionality**. Added logic to how the case hold functionality works. Added the ability to look at the production hold vs. "information only" case hold information. Also provided detailed ability to view all of the case hold information on the case hold view rather than just the description (ex. WHO put the case on hold and WHEN). Brought this feature set up to the same standard as the universal module for grossing to be consistent.

- **Distribution Module. Protocol History**. Modified the scan history information that is shown on the screen. When protocols and slide tracking numbers are displayed, the screen was not big enough to hold all of the information. Placed the protocol and tracking information on a seperate line in the scan history list.

- **Distribution Module. Case Component History Choice**. Added a configuration choice to the module to allow for printing history based on case components as opposed to being limited to just microtomy history.

- **Distribution Module. Case Component History**. Sequence Number. Added the sequence number and tracking number to the history on a seperate line to provide more information on the history.

- **Admin Web Site – Case Component Acknowledgement Report**. Tracking Number. Added the tracking number to this report to provide more information about case component acknowledgements.

- **Admin web Site – Case Component Tracking Report**. Sequence number and full accession. Reformatted the full accession number instead of showing each portion in a seperate column and added the sequence number/tracking number to provide more data.

- **Warehouse Module – Drawer Utility Screen**. Accession number formatting. Changed the formatting of the accession number to make it more visually appealing.

- **Universal Module. Cassette Queue**. Arrival sequence printing. Added a configuration choice to print by accession number order OR arrival sequence. Previously, the screen only printed in accession number order.

- **Admin Web Site – Service Provider Type Maintenance** – Created this screen to allow for the maintenance of service provider types. This is part of new functionality being introduced into Assist to allow for the tracking of "outsourced" work being performed.

- **Admin Web Site – Service Provider Maintenance**. Created this screen to allow for the maintenance of service providers. This is part of new functionality to support outsourcing service providers in mulitple sections of Assist.

- **Admin Web Site – Distribution Location Maintenance**. Service Provider Drop down. Added the service provider as a value that can be associated with a distribution location. This allows for the specification that distribution locations might be outsourcing partners inbound and outbound and for automated distribution.

- **Print Center. Slide Label Print Screen**. Print Template. Added the print template drop down box to the slide label print screen to allow for "standard" template customization of label printing for sites that use this screen.

- **Sample Testing - Shipping Tab** – Manifest/Printing Area. Rearranged this section of the screen to clean it up. Changed a couple of the options to make more accurate as to what they do. Specifically renamed the "Close Package" check box since it was not named as accurately as it could be. Made the manifest number larger.

- **Sample Testing - Shipping Tab Auto Close Utility** – Added the accession number to the criteria so that a single case could be retrieved if needed.

- **Sample Testing - Shipping Tab Auto Close Utility** – Row count. Added the row count to the screen when many rows are retrieved.

- **Sample Testing - Shipping Tab – Inbound/Outbound Refresh Option** – Added a checkbox to the shipping area to allow for the choice of reloading the inbound/outbound screen at the point of save on the shipping tab.

- **Sample Testing - Shipping Tab - Auto Close Utility** – Added configuration choice to enable/disable the auto open choice due to the risk of accidentally opening up all closed packages.

- **Sample Testing - Shipping Tab - Auto Close Utility** – **Status Choice**. Added a filtered status drop down to this utility that only shows "closed" status values to allow for the assignment of a specific status when auto closing packages.

- **Sample Testing – Top of Screen - Close Pending Button** – Added a large status button to the top of the screen that lists a count of packages that SHOULD be eligible for closure. The logic produces a count of packages where all materials that are flagged for return are returned. Clicking this button launches the auto close utility just like from the shipping tab (box with wrench button).

- **Sample Testing – Receiving Tab – Detail/Header Accession check**. Added logic on the detail save to ensure that the accession number of the active package matches the accession number of the detail object.

- **Sample Testing – Receiving Tab – Accession Across Multiple packages**. Modified the logic to limit an accession number from existing on multiple packages. If the same accession is submitted more than once, the logic prevented the accession number from being entered against more than one package. Since over the lifetime of the accession, it could come back into the lab, adjusted the rule to be that the accession can only exist on one OPEN package at a time to allow for appropriate tracking of a "resubmitted" specimen to be able to have separate received/returned timelines.

- **Admin Web Site - FISH Batch Details Audit Log** – Created this report to provide visibility to the FISH batch details audit log.

- **Sample Testing. Receiving Tab. Order Modification (Magnifying Glass Button).** Under the order modification pop up screen, added a checkbox to indicate an intentional deletion of a "non-open" order. There is a checkbox that drives this behavior and it can be enabled or not based on configuration choices. Also added a comments box which can be enforced to require an explanation for the deletion of a "non-open" status order.

- **Sample Testing. Receiving Tab**. Order Modification (Magnifying Glass Button). When an open status order was deleted, no audit trail record was being written into the doctor order audit log because the order never "really" existed. This has been changed to now record the deletion especially since all status orders can now be deleted.

- **Sample Testing. Receiving Tab. Order Modification** (Magnifying Glass Button). Order Cancellation Logic. If an order is deleted, a cancellation transaction can now be written (based on checkbox) to drive the cancellation scoreboard to let other sections of the lab know not to process the order. It is an "opt out" transaction since the order may have never left accessioning before needing to be deleted.

- **Sample Testing. Receiving Tab. Order Modification (**Magnifying Glass Button). Full Reset button (Test Tube button). Do not allow a full order flag reset if there are any orders. Must process the order screen and delete before resetting the flag.

- **Distribution Module. Auto Distribution View**. Modified the distribution module to include the auto distribution view that can be toggled to from the manifest view section of teh screen. The default between the two can be chosed inside the configuration.

- **Distribution Module. Doctor Name/Abbreviation Toggle**. Added a checkbox inside the auto distribution area to allow for control of whether the full distribution location name is displayed or the doctor abbreviation.

- **Distribution Module. Day End Display Button**. Added a button on the auto distribution view that shows the date/time of the last day end that has

been completed. This allows distribution personnel to see what the date/time is being used to drive the auto distribution data.

- **Distribution Module. Write Auto Doctor Inactivation Data.** If a distribution location is marked as "inactive" and the target is removed from auto distribution, a record is written to the inactive table for analysis.

- **Admin Web Site. Distribution Auto Inactivation Report**. Created this report to provide visibility to the inactivation transactions that were made during automatic distribution where doctors were taken out of the active list of targets for object distribution.

- **Admin Web Site – Security Maintenance. Service Provider**. Added a dropdown for the specification of a service provider on the security maintenance screen. This allows for the specification of an external vendor, outsourcer, etc. as a user badge.

- **Stain Queue – Automatic Order close using Sequence number**. The on demand scan routine did not make use of the sequence number when applying the automatic status value which was causing problems when an entire case did not hit the stain queue at the same time.

- **Stain Queue – Sequence number inclusion in grid**. Added the sequence number to the stain queue grid view.

- **Stain Queue – Scan On Demand. Scan History and Sequence number**. Added scan history information to the stain queue on demand scanning so that transactions can be viewed and also added the sequence numbers.

- **Stain Queue – Queue Modification. Sequence Number Inclusion**. The queue modification (right-hand section) of the screen did not include the sequence number to allow for changes. This was added.

- **Sample Testing – Cytogenetics tab. Chain of custody capture.** Added the chain of custody information for the cytogenetics save to write into the main Assist transaction log table for reporting.

- **Sample Testing – FISH tab. Chain of custody capture.** Added the chain of custody information for the Fish save to write into the main Assist transaction log table for reporting.

- **Admin Web Site. Material Type Maintenance. Default Print On checkbox**. Added this checkbox to the maintenance screen so that at receiving, the material label print choice can default on or off to save the clicks.

- **Sample Testing – PCR tab. Chain of custody capture for PCR extraction**. Added the chain of custody information for the PCR extraction save to write into the main Assist transaction log table for reporting.

- **Sample Testing – PCR tab. Chain of custody capture for PCR order**. Added the chain of custody information for the PCR order save to write into the main Assist transaction log table for reporting.

- **Sample Testing – Receiving Tab. Material Type Default Print On**. Added the logic to the "default print" setting for the material type so that the items will be pre-selected to print when added.

- **Admin Web Site – Distribution Auto Inactivation Report** – Specimen Category and Type. Added these two fields to the report.

- **Distribution Module – Auto Distribution – Day End Details Display** – On the section of the distribution module that handles automatic distribution, the status of the day end transaction is critical for the functioning of pre-distribution. While the "last day end" value is already visible on the screen, there was no visibility to historical day end transactions without running a report on the admiinistrative web site. Added a button to pop up a screen to see historical day end transactions.

- **Distribution Module – Auto Distribution – Doctor Inactivation Detailed Logic**. Added detailed logic to the automatic distribution functional area to mark a doctor as inactive at the specimen category and type level rather than simply at a doctor level. This allows for taking a doctor out of the mix for auto distribution by "product lines" if they need an ad hoc different mix of products.

September 2023

- **Admin Web Site – FISH Batch Details Audit Report**. Inclusion of active data. The audit report was modified to add a checkbox to allow for the display of

both active FISH batch data as well as the historical audit log information to provide one report for all data.

- **Admin Web Site – Business Brand Maintenance** – Created this screen to allow for maintenance of business brands. Brands represent different lines of business that an organization can utilize and allows for the assignment of brands with clients to keep track of which section of the business the client works with (one to many).

- **Order Closeout – Doctor Orders. Order Cancellation logic**. Added the ability to write to the order cancellation table if an order is cancelled.

- **Universal Slide POU – Doctor Order Printing**. Order Only No Print Order Types. The doctor order print routine was ignoring this flag. Corrected this to suppress order types that have this setting active.

- **Distribution Module – Auto Distribution Unassignment**. Added logic to allow for the removal of distribution data or back out of distribution to put records back into the mix if they were done via error. This was done using the pop up screen for the visual of assignment.

- **Distribution Module – Auto Distribution Show Rules**. Added a checkbox to the auto distribution area to show the rules for an accession. The client demographics are displayed along with the specimen types for the case with a list of doctors that are eligible to read the case from a licensure standpoint.

- **Admin Web Site – Client Brand Maintenance**. Created this maintenance screen to allow for the assignment of clients to business brands in a many to many fashion. If there are multiple business brands for a company and each brand does business with a client, this allows for the capture of under which brand an individual case was being worked or sold.

- **Admin Web Site – Service Provider Maintenance**. Maximum Case Workload and Allow Maximum Overload. Added the maximum case workload field to the service provider to keep track of the maximum cases that are allowed to be worked (ex. outsourced) to a service provider. This will throttle the assignment screens in Assist UNLESS the allow override

checkbox is selected which provides the ability to override the maximum value.

- **Sample Testing – Receiving Tab**. Material Submitted Save/Audit Trail. Added the original record number from the original material submitted record number to allow for the audit trail of submitted testing to tie to the detailed audit trail.

- **Sample Testing – Receiving Tab**. **Template audit trail**. Discovered that the use of the template to add material submitted details did not write to the audit trail. Added this functionality to close the loophole on auditing.

- **Sample Testing – Receiving Tab**. **Package Drop down Auto Load**. Modified the logic on the receiving tab to sort the data in the package drop down by created date in descending order (i.e., most recent at the top) and added a configuration flag to preload the most recent if configured.

- **Sample Testing – Receiving Tab**. **Package drop down logic**. Modified the package drop down load to change the color of the package label to green if there are multiple values to help distinguish from no data found in which case the label will be black.

- **Sample Testing – Receiving Tab**. **Client Details Display Button icon**. The icon on this button was the magnifying glass which was the same as the order details section and was therefore confusing. Changed the icon to be unique (File Folder picture).

- **Sample Testing – Receiving Tab. Client Details Pop up Screen**. The pop up screen to show client related details from the interface was not loading correctly. Fixed this issue.

- **Distribution Module – Auto Distribution – Day End Selection** – Added the ability based on a configuration flag setting to change the active day end value. This feature would typically only be used by an Assist administrator during testing, but COULD be used to back date automatic distribution if this was needed.

- **Distribution Module – Auto Distribution – Unassigned Display**. Modified the automatic distribution inquiry screen to give the ability to see any

accessions that did not get assignment done successfully to a doctor for troubleshooting purposes without having to go to the administrative web site.

- **Admin Web Site – Material Submitted Report and Audit Log**. Created this report to provide visibility to the material submitted data that is part of the sample testing module in Assist. There is a toggle choice to go between the "live" data and the audit log data for research purposes.

- **Admin Web Site – Service Provider Workflow Maintenance** – Created this screen as part of the service provider logic (i.e., outsourcing) to be able to create specific specimen workflows that an be assigned to a service provider.

- **Admin Web Site – Service Provider Workflow Status Maintenance** – Created this screen to allow for maintenance of the service provider workflow status values. These are used as part of the service provider (i.e., outsource vendors) tracking.

- **Sample Testing – PCR Tab. Order Notation pop up screen**. Show Copy concentration value, PCR Repeat, and Extraction repeat choices. Added three new fields to the notation specification and display them on the screen as values for the order notation is changed.

- **Sample Testing – PCR Tab. Order Notation pop up screen**. Concentration Value display. Added the three concentration values to the pop up screen (C1, C2, Cavg) but ONLY if the screen is displayed coming from the Order Type view of the PCR tab as opposed to the extraction side where the values are suppressed.

- **Admin Web Site – Order Type Maintenance. Reflex Type**. Added a checkbox to the screen to allow for the specification of an order type as a reflext order type for use in the sample testing module of Assist in the PCR functional area.

- **Admin Web Site – Order Notation Maintenance. New field additions**. Four new checkboxes were added to this screen: Copy Concentration Value, PCR Repeat, PCR Reflex, and Extraction Repeat. Each one of these determines

how the order notations behave inside the sample testing module/pcr tab area.

- **Sample Testing – PCR Tab. Order Notation pop up screen**. Order types for reflex notations. Modified the pop up notation screen to allow for the entry of reflex orders if the notation indicates a reflex order is being generated.

- **Check In Module – Case Hold Functionality**. Modified the case hold logic to provide the ability to scan repetitively into case hold mode. Previously, the case hold screen would toggle forward to case hold and back to the main screen, but the screen could not be effectively used as a pure case hold screen. This repetitive hold scanning is now allowed.

- **Distribution Module – Auto Distribution Manual Login**. When the manual login option was used, the auto distribution data was showing on the login screen, which was odd. Hid this section of the screen to cut down on confusion.

- **Interface Utility – Auto Distribution Exceptions**. The write into the auto distribution exceptions table did not capture the auto distribution job run date/time that generated the exception which made it difficult to see the specific reason an accession did not get distributed if it has passed through the auto distribution logic more than once.

- **Admin Web Site. Distribution Auto Exceptions Report**. Auto Distribution Run Date. Added this column to the report to better indicate the "run" to which the exception belongs.

- **Distribution Module. Auto Distribution Exceptions Screen**. Inside the auto distribution section of the distribution module, added a pop up screen to allow for the display of any/all exceptions that might exist for objects that did not qualify for automatic distribution.

- **Admin Web Site. Service Provider File Type Maintenance**. Created this screen as part of the distribution area of Assist factoring in service providers and outsourcing. This is specifically geared toward digital objects and this maintenance screen allows for the specifications of which Windows file types should be considered for distribution when working with digital objects and service providers.

- **QC Module Manufacturing. MFG Task Tab**. Multiple sources of employee. Modified the QC module plus manufacturing task tab to handle situations where an employee is known only to Assist, only to the LIS, or to both to better handle sources of task scans and display.

- **QC Module Manufacturing. Rework Tab**. Multiple sources of employee. Modified the QC module plus manufacturing task tab to handle situations where an employee is known only to Assist, only to the LIS, or to both to better handle sources of task scans and display on the rework tab area.

- **Admin Web Site. Service Provider Workflow Reference Maintenance**. Created this maintenance screen to add more flexibility to oursourcing operations. This screen allows for the specification of which workflows can be assigned to a service provider (i.e., outsourcer) and how many cases and specimens can be assigned.

- **Admin Web Site. Service Provider Workflow Status Reference Maintenance**. This screen was created as part of the outsourcing/service provider logic inside Assist. This status data is where the various workflow status values that are "eligible" for a service provider are mapped. This supports the idea that different providers can perform different workflow steps and/or status values.

- **Admin Web Site. Distribution Auto Daily Summary Report**. Override On, Manual Creation, Manual Creation Date, Manual Creation user. Added the above fields to this report to provide visibility to additional data that has been added to the auto distribution process.

- **Distribution Module. Auto Distribution Grid**. Remaining Cases column and Addition/Subtraction column.

- **Distribution Module. Auto Distribution Process**. Unplanned accession addition logic. Added logic to the distribution module to allow for the scanning of objects (i.e., slides) that were not part of the auto distribution "pool" of objects that are supposed to be distributed. This allows for ad hoc scanning with tracking added to keep a + value to show how many cases were distributed above the planned number from the auto distribution artificial intelligence routine.

- **Interface Utility. Auto Distribution**. Manual Creation Field defaults. Multiple fields were added to the auto distribution database tables to keep track of records that are generated manually. Changed the AI to put blank default values into these fields rather than leaving them as null values.

- **Interface Utility. Auto Distribution.** Original Day End Data and Rollover Count. Added fields for the original day end information to the table that is created by the artificial intelligent distribution robot to capture the original data and also a count of the number of times data has been processed by the robot.

- **Admin Web Site. Distribution Auto Daily Summary Report**. Original Day End Year, Month, Day and Override Count fields. Added these fields to the report to report on the new information that has been added to the database.

- **Scoreboard. Multiple Shipment Board**. Adjusted cell/font size and color/data keys at top of screen. Added a header line to the top of this "board" to show the key of what grid colors and calculations mean and adjusted the contents of the grid cells.

- **Admin Web Site. Outsource Work Tracking Report**. Created this report to provide visibility to the outsource work tracking information for sites that use service providers to outsource work.

Fourth Quarter 2023

October 2023

- **Sample Testing – Receiving Tab**. Added a warning to the receiving tab if changes are made on the details of a package that has a closed status. The warning it telling the employee to "reopen" the package so that it will show correctly on the various screens if it has been changed. This is controlled by configuration whether or not the check is made.

- **Admin Web Site – Assist Licensing Maintenance** – Created this screen to allow for the maintenance of the Assist licensing logic that is being

introduced into mulitple modules of Assist to allow for the purchase of license packs for the various modules.

- **Clinical Module. License Activation Logic -** Modified the clinical module of Assist to check for available license pack quantities for the usage of the software to better facilitate large scale application roll outs for clients.

- **Sample Testing – Shipping Tab** - Modified the logic on the shipping tab to sort the data in the package drop down by created date in descending order (i.e., most recent at the top) and added a configuration flag to preload the most recent if configured.

- **Admin Web Site – LIS Interface Detail Inquiry** – Specimen Type/Order use location identifier. The location identifier was not being applied in the critieria for the specimen type and order retrieval which was showing prior year data in the inquiry for sites that use the Pathway LIS. Corrected this inquiry lookup.

- **Admin Web Site – Material Type Maintenance – Sequence Zero Only**. Added this field to the maintenance screen to allow for the specification that the material type in question cannot have sequence numbers. This will be applicable inside the Sample Testing module of Assist.

- **Warehouse Module – Cabinet Template – Drawer Creation extra fields**. There have been several new fields added to the cabinet and drawer tables over the years that have not been included in the template creation. The field values would not be known at template creation time, but Nulls were getting written into the database. Added the fields with blank placeholders instead.

- **Sample Testing – Receiving Tab - Package Number Criteria**. Added the package number to the selection criteria to allow for the pull back of a specific package when one is known.

- **Sample Testing – Receiving Tab** – Package Accession number update logic. Discovered that the update of the parent record did not perform a check to make sure that all previously entered detailed accession records matched the parent. This was allowing the end users to mismatch the parent package

record from the children. Added an error check for this scenario when performing a package parent update.

- **Sample Testing – Receiving Tab** – Resequence Button. Found an issue where the resequence button did not work correctly when multiple specimen/part records were on a single package. The numbering did not consider the change in specimen/part and also did not consider the "always zero sequence" value. Corrected both of these issues.

- **Sample Testing – Receiving Tab** – Delete All button hourglass. The "wait" hourglass was not being used when the delete all button was clicked which could cause confusion as to whether or not the screen was still processing the command. Added the hourglass.

- **Admin Web Site – Multiple Pieces Maintenance** – Show Record Number Checkbox. This toggle button was not working correctly. This has been fixed.

- **MFG Module – LIS Scheduled Field**. Added this field to the screen to allow for the capture of whether or not the task scanned was scheduled inside the LIS. This is assuming the "enforce" is turned off and an LIS interface check exists.

- **Admin Web Site – MFG Task Transaction Report** – LIS Scheduled Field. Added this field to the report to show task transactions and whether or not they were scheduled tasks in the LIS.

- **Admin Web Site – Service Provider File Type Maintenance**. Sent file path and credentials. Added fields to the database to allow for the capture of the file path and credentials for sending outsourced digital files by file type/service provider.

- **Doctor Closeout** – First Display Employee/Time Stamp and display count. Added logic into the doctor closeout screen to capture the first date/time that a record is displayed on the screen. Also capture the employee that is logged into the screen the first time the record is displayed. Additionally added a counter value that increments by one every time a record is displayed on the screen to provide line of sight to how often an order is displayed and the original time.

- **Admin Web Site – Doctor Order Listing** – First Closeout Display Information and display count. Added the first displayed date/time stamp, employee and display count to this report to provide visibility to these new data fields that are being captured as explained above. This can be valuable when looking at TAT with orders.

- **Admin Web Site – Material Type Maintenance** – Histology Suppress Print check box. Added this checkbox to the screen to allow for the specification of material type that should never print when encountered at microtomy. This is helpful in facilities where blocks/orders are receiving that need to go to histology but only SOME of the object need to have labels/slides printed.

- **Universal Slide POU. Histology Suppress Print choice**. Added logic to the slide point of use routine to not print orders if they are associated with material types (i.e., from the Sample Testing module) that have the Histology Suppress Print option selected.

- **Admin Web Site. Doctor Order Type Listing**. Multiple new fields. Modified the doctor order type listing to include lots of new fields that have been added to the order type table.

- **Admin Web Site. Material Type Listing**. Created this report to provide a "dictionary" of all of the material types created in Assist and the various settings associated with them.

- **Sample Testing – PCR Tab**. Extraction View. Grid row count. Added a count value to the screen to show the number of rows of data that were included in a retrieval.

- **Admin Web Site – Doctor License Report**. Active Only Checkbox. Added this checkbox to the screen to allow for the filtering out of only active licenses with active being defined as the current date between the effective start and expiration dates.

- **Admin Web Site – Doctor License Summary** – Created this report to provide summary counts of how many doctors are licensed by state to provide management with meaningful data as to clients and state coverage.

- **Admin Web Site – State Accession Summary** – Created this report to provide summary information to show the volume of accessions that are coming into the laboratory by state.

- **Admin Web Site – Distribution Auto Doctor Daily Summary** – Created this report to show an alternative view of the automatic distribution data to show accession volumes by doctor according to the automatic distribution logic with additional data to show ACTUAL distribution so that overrides and discrepancies can be analysed.

- **Admin Web Site – Order Workflow Maintenance**. Generate notifications checkbox. Added a generate notifications checkbox to this maintenance screen to allow for the suppression of notifications if a facility is using workflow tracking but not notifications.

- **Sample Testing – Receiving tab. Generate notifications logic**. Modified the sample testing order generation process to consider the new generate notifications option and suppress the notifications if indicated.

- **Sample Testing – Receiving Tab**. Order Deletion Logic. Tweaked the logic associated with deleting detailed orders against materials. Made sure that the deletion is allowed if there are no orders associated with a specimen/material or the order master generation process has not been performed.

- **Sample Testing – All tabs**. Use Business Unit logic. The loading of several drop down boxes on this screen is driven by membership in different business units. Added a flag to allow for this attempt to filter to be removed if business units are not being used.

- **LIS Interface Utility – Client Master Addition**. New Fields. Added several new fields as placeholders when writing into the client master file to not have "null" additions.

- **Admin Web Site – Sample Missing Client Report**. Created this report to provide visibility to the material submission packages that have no associated client. This report can be run with counts/date and also as an accession listing.

- **Interface Utilty – Auto Image Hold Robot**. Created a new unattended robot job inside the interface utility for sites that capture images and then close them after processing. The robot auto closes images after they have been open for X days after the creation. This greatly improves the performance of the image capture screen by not loading multiple thumbnail images of active pictures on the screen.

November 2023

- **Interface Utility – Auto Distribution**. Assignment audit log purge. Added logic to the auto distribution artificial intelligence robot to purge data from the assignment audit log table based on configuration flag and days back configuration value to prevent database bloat.

- **Interface Utility – Auto Distribution**. Exceptions audit log purge. Added logic to the auto distribution artificial intelligence robot to purge data from the exceptions audit log table based on configuration flag and days back configuration value to prevent database bloat.

- **Interface Utility – Auto Distribution**. Doctor Capacity check. Moved the capacity check for doctors to the top of the auto distribution algorithm so that all of the subsequent testing is not done which wastes time if over capacity distribution is not allowed.

- **Universal POU. Show Suppress Print Option**. Recently, in the doctor order view, a column was added to indicate whether or not suppressed orders should be visible in the list. A check box was added to the grid to allow for the control of this behavior by site. This will also prevent the loading of the records to the grid if they should be suppressed.

- **Admin Web Site – Inventory Master Maintenance**. UDI Label 2 Field. Modified the inventory maintenance screen to allow for the inclusion of a second line of UDI description for sites that use UDI labels and need more space than the original 60 characters of description.

- **Universal Slide POU. Business Unit Logic**. Add the ability on doctor orders when printing slides to pull the business unit code for the doctor that placed the order and put in parameters to print the business unit code for sites that need to do this.

- **Sample Testing – PCR Tab**. Extraction Repeat orders. These orders were not displaying correctly. Were coming through with no order type. Found the issue and corrected.

- **Sample Testing – PCR Tab**. Extraction Notation Deletion. There was no ability to delete notation records (repeat, etc.) so added a delete button but can only remove extraction records if they have not already been started. It was added to allow for the removal of true mistaken additions.

- **Sample Testing – Shipping Tab and Manifest Utility**. Added the ability to print the patient name to the manifests on the line below the accession number.

- **Interface Utility – Auto Distribution**. Run Start/End date/time stamps. Added a run start and run end date/time stamp to the utility to capture the exact time for the robot job to complete and also to allow for determination of whether or not the job is currently active.

- **Admin Web Site – Distribution Auto Log**. Extended this report to include the run start and run end date/time stamps that have been added to provide visibillity to this information.

- **Scoreboard – Auto Distribution Board**. Created this scoreboard view to provide a count of the outstanding accessions by day end year, month, day that have not been distributed. This is a valuable "count down" for sites that use the auto distribution artificial intelligence robot.

- **Interface Utility – Auto Distribution**. Auto Close Run Date/Time. Added logic to the robot to look for audit log transactions with a missing end date/time. If the "missing" audit records are outside of a threshhold specified in the configuration, add an end date to close out an "aborted" run. This is needed due to the logic being added to ensure that the robot is not running concurrently.

- **Interface Utility – Auto Distribution**. Concurrency Check. Added logic to the auto distribution robot to check for a job that has been started but not completed to allow for the prevention of a redundant job run. The "auto close" that was added will close any abandoned jobs.

- **Admin Web Site – MFG Tasks Maintenance** – Batch Task flag. Added this checkbox to the maintenance screen to allow for marking of a manufacturing task as eligible for use on batch screens such as the check in module.

- **Admin Web Site – MFG Task Transaction Report** – Cancelled By and Cancelled Date/Time fields. Added these fields to the report to provide visibility to the information.

- **Admin Web Site – LIS Interface Detail Inquiry**. Screen redesign and addition of specimen type source. Modified the inquiry to better display information and show the source in the specimen type area of the inquiry.

- **Doctor Module – Workload Detail/Summary Tab** – Added an entire tab to the doctor module to handle the display of auto distribution information. This provides line of sight to what information has been/will be sent to a doctor for reading. Has selection criteria for filtering the data and can also be displayed as detail and summary information.

- **Doctor Module – Diagnostic Tab**. Alt-B toggle fast key for fast code category enforcement. Added logic so that the alt-b key press or dictation will toggle the fast code category enforcement checkbox on the screen.

- **Admin Web Site – LIS Interface Detail Inquiry**. Accession wildcard lookup. Modified the selection criteria logic to use a wildcard on the accession number instead of an exact match. This was needed to handle a leading zero issue on some accession numbers.

- **Scoreboard – Auto Distribution Unread Board**. Created this scoreboard view to provide a count of the outstanding accessions by day end year, month, day that have not been distributed but do not have a "doctor read" timestamp. This is a valuable "count down" for sites that use the auto distribution artificial intelligence robot and doctor module to indicate processed.

- **Doctor Module – Information Tab**. About Box Button. Added a "?" button to the information tab to launch an about box pop up screen to show information about the executable such as date, version, etc.

- **Check In Module – MFG Task Version.** Write Transaction Log. Added logic to the check in module when using the new manufacturing task scan tab view to have the option to also write transactions to the main Assist transaction log based on configuration flag.

- **Admin Web Site – MFG Task Employee Summary**. From/To Time drop down. Added from/to time drop down boxes to allow for specific hours of the day to be included in the reports.

- **Universal Module – Slide POU**. T Number calculation. There was an issue with the "T" number on the latest update in some scenarios with the first slide not getting the value. Resolved this issue.

- **Admin Web Site – Manufacturing Employee Task Entry**. Created this screen to provide a method of entering and/or updating employee/manufacturing task transactions. This data is typically creating using the various Assist manufacturing modules, but this web option allows for overrides or entry for sites/employees that do not have access to the desktop modules.

- **Admin Web Site – Employee Scan Time Report**. Speed Enhancements. Made modifications to this report to try and speed up the detail version data retrieval.

- **Main Scanner Engine – Slide Scanning Section**. Protocol Alternates and slide tracking. Added the slide tracking variables in case they are encountered in a slide bar code and also added handling for protocol wildcard alternatives.

- **Doctor Module – Workload Tab**. Double Click on workload row to show details. Added logic to the workload tab so that a double click on a workload record will show all of the auto distribution information associated with the record.

- **Doctor Module – Transaction Log on Retrieve button**. Added logic to write a transaction log record to the database when the retrieve button is pressed for a manual accession number entry to capture the fact that the accession was accessed via the doctor module.

- **Doctor Module – Transaction Log routine**. Modified the write routine to capture the date/time stamp of the module into the scan software number as is done with the other modules of Assist.

- **Doctor Module – Auto Distribution Update**. Modified the accession retrieval routine, whether via button or scan to update the auto distribution database table with the doctor read timestamp and doctor that read the case to close the loop back to distribution on the timeline of when the case was read by a doctor.

December 2023

- **Check In Module – LIS Integration Database name from control data**. Added logic to the module to pull the LIS database information from the control data table in the Assist database and removed the values from the various SQL strings to ease portability.

- **Check In Module – LIS Integration Database name from config file as override**. Added logic to the module to pull the LIS database information from the config text file as an override at the individual computer level from the value that was added in the Assist database.

- **Manufacturing Module – LIS Integration Database name from control data**. Added logic to the module to pull the LIS database information from the control data table in the Assist database and removed the values from the various SQL strings to ease portability.

- **Manufacturing Module – LIS Integration Database name from config file as override**. Added logic to the module to pull the LIS database information from the config text file as an override at the individual computer level from the value that was added in the Assist database.

- **QA Out Module – LIS Integration Database name from control data**. Added logic to the module to pull the LIS database information from the control data table in the Assist database and removed the values from the various SQL strings to ease portability.

- **QA Out Module – LIS Integration Database name from config file as override**. Added logic to the module to pull the LIS database information

from the config text file as an override at the individual computer level from the value that was added in the Assist database.

- **Universal Slide POU – IHC Print variables.** In order to handle the scenario where a different printer is used for IHC labels than from "regular" slides a full set of IHC variables has been added to allow for a completely different set of X/Y coordinates for "regular" vs. IHC label templates. Ex. a true slide printer (i.e., Leica) for regular slides and a Zebra label printer for IHC.

- **Sample Testing – Receiving Tab**. Material Order sort order. The material order pop up screen was showing the detailed data in arrival sequence instead of full accession sequence. Added logic to allow for sort order routing of either arrival OR full accession with sequence number.

- **Sample Testiing – PCR Tab**. Extraction batch number automatically unchecks unassigned. If an extraction batch number is specified on retrieve but the check box for "unassigned only" was selected, no data would be returned which could be confusing. Modified the logic to automatically uncheck the unassigned checkbox if a valid number was entered into the batch number field.

- **Universal Slide POU – Doctor Order View**. Selection column hidden. A previous change to the suppress print option column being hidden caused the selection column to be hidden. This was corrected.

- **Sample Testing – Receiving Tab**. Order Delete process was changed to reset the order master flag on the material submitted record if the data was cleared from the sample testing grid.

- **Main Scanner Engine – Patient Retrieve/Encryption Logic**. Added logic into the main scanner engine when patient names are retrieved from the LIS Interface table. If names are retrieved and have not been encrypted, they will be done now.

- **Warehouse Module. Warehouse Inquiry**. Modified the logic associated with pathway retrievals to include the location identifier and the accession prefix if the free form field was used.

- **Admin Web Site – Employee Scan Time Report**. A new field was added to the report to show a "Y/N" value for auto logout in the detail view to reflect whether the employee logout transaction was from inactivity or an intentional logout.

- **Admin Web Site – Accession Prefix Summary Report**. Specimen Count column. There were already columns on this report for case count, cassette count (i.e., part) and slide count, but there was no column for specimen count (i.e., bottle). This was added.

- **Universal Slide POU. Protocol drop down list size**. Added a variable to the configuration to allow for customization of the size of the protocol/stain drop down on the screen. For sites with a large listing of protocols and a small screen resolution, this allows for the drop down to be customized so that it does not go off the screen.

- **Sample Testing – Receiving Tab**. Order delete with comments. Added logic on the comments specification on an order delete to add the comments to the communications log.

- **Sample Testing – FISH tab**. Batch details select all/unselect all button functionality. Added these two buttons to the fish batch detail area to eliminate the need to click each check box individually.

- **Sample Testing – Flow Tab**. Communications Log. Modified the flow tab so that any comments entered into the flow tab get added to the communications log with a prefix on them to indicate that they came from flow.

- **Interface Utility - Auto Distribution Algorithm Changes**. Modified the auto distribution algorithm to work based on doctor capacity value. This used to be the specimen metric but was changed. Added a configuration flag to allow the value to be derived from either the doctor schedule case value or case test value field.

- **Admin Web Site – Distribution Auto Daily Report** – Specimen Metric converted to Doctor capacity value. To reflect changes that have been made in auto distribution.

- **Admin Web Site – Distribution Auto Daily Maintenance** - Specimen Metric converted to Doctor capacity value. To reflect changes that have been made in auto distribution.

- **Admin Web Site – Distribution Auto Doctor Daily Summary**. Added the summarized doctor capacity value to this report. Previously, only the case count values were shown.

- **Admin Web Site – Distribution Auto Doctor Report**. Modified this report to include the summarized doctor capacity value.

- **Admin Web Site – Doctor Auto Not Assigned Report**. Modified this report to also show the doctor capacity value.

- **Admin Web Site – Distribution Auto Summary Maintenance**. Modified this screen to include the doctor capacity value instead of the specimen metric to reflect changes that were made to auto distribution.

- **Admin Web Site – Distribution Auto Summary Report**. Modified this screen to include the doctor capacity value to reflect changes to the auto distribution robot.

- **Case/MFG Task Entry Module** – Created this brand new module to handle the capture of case/accession number and manufacturing task completed. This module will be used typically for remote workers to indicate completed tasks where scanning infrastructure will not be present.

- **Distribution Module – Invalid default distribution location**. Discovered an issue where if the configuration value for the default distribution location did not exist in the distribution location table in the database, that the screen did not load correctly. Modified the screen load routine to survive this situation.

- **Admin Web Site – Collection Points Maintenance**. Include Auto Distribution check box. Added a check box to this screen to allow the auto distribution robot to key off the box for determining the inclusion of accession numbers. Previously, this key was done based on collection point grouping which could cause some odd "naming" for collection points. This makes the inclusion more logical and intentional.

- **Admin Web Site – Specimen Type Maintenance**. CPT Code information including price and cost fields. Added a CPT code drop down to the specimen type maintenance screen to allow for mapping of billing codes to tissue types. Also included histology cost and price fields and test cost and test price fields to be used in analyzing price/cost increase/decrease decisions.

- **Admin Web Site – CPT Category Maintenance**. Created this screen to allow for the maintenance of CPT code categories which

- **Admin Web Site – Accession Slide Count Maintenance**. CPT Code drop down. Added the CPT code drop down to the individual slide recipe section of the screen so that CPT codes can be associated with the detail stain area of the screen.

- **Admin Web Site – Accession Slide Count Maintenance**. Header section CPT code drop down. Added the CPT code as a choice on the screen header section of the screen. This provides for the ability to collect CPT information at the "panel" level with override ability at the individual stain level.

- **Sample Testing – Cytogenetics Tab**. Communications Log. Modified the Cytogenetics tab so that any comments entered into the Cytogenetics tab get added to the communications log with a prefix on them to indicate that they came from Cytogenetics.

- **Sample Testing – Flow Tab**. Communications Log View. The notes asterisk button was not launching the communications log screen. Modified this to work correctly.

- **Sample Testing – Cytogenetics Tab**. Communications Log View. The notes asterisk button was not launching the communications log screen. Modified this to work correctly.

- **Sample Testing – Receiving Details Tab**. Workflow Defaulting. If there is only workflow listed in the drop down box, make it the default instead of "not specified".

- **Sample Testing – Receiving Tab**. Specimen Type Tracking information. Several new fields have been added to the specimen type tracking table but

were not in the write routine. Corrected this and also added a write transaction to the specimen type tracking audit log which was not being done.

- **Universal Module. Specimen Type Tracking Logic**. CPT Code information. Modified the routines that write to specimen type tracking table and audit log to also capture the CPT code number from the library and the actual code.

- **Admin Web Site – Client Master Maintenance**. Client Code selection criteria. Added the client code as part of the selection criteria to allow for lookup based on the code or LIS cross reference field with a wildcard search.

- **Accessioning Module. Specimen Type Tracking Logic**. CPT Code information. Modified the routines that write to specimen type tracking table and audit log to also capture the CPT code number from the library and the actual code.

- **Main Scanner Engine. Specimen Type Tracking Logic**. CPT Code information. Modified the routines that write to specimen type tracking table and audit log to also capture the CPT code number from the library and the actual code.

- **Sample Testing. Material Order Pop Up Screen**. Order type text alignment. Added a Y/N flag to determine whether or not the order type description is listed in the grid left justified or centered.

- **Sample Testing. Material Order Pop Up Screen**. Added logic to use the order type short description in the ordering grid instead of the full description if the text length is larger than can be effectively displayed in the grid.

- **Admin Web Site – Specimen Type Information Report**. CPT Code Column. Added the CPT code field to this report.

- **Admin Web Site – Specimen Type Tracking Audit Log**. CPT Code Column. Added the CPT code field to this report.

- **Admin Web Site – CPT Code Library Maintenance**. Created this screen to provide for maintenance of the CPT code library.

- **Admin Web Site – Queue Loader Settings**. Machine Name Criteria. Added the machine name to the criteria on this maintenance screen to allow for filtering of data.

- **Universal Module – Universal Cassette POU**. 3 New Hot keys. On the grossing information pop up screen, three new hot keys have been added. ALT-D clears the clinical information area. ALT-M clears the grossing notes area. ALT-Q clears the patient history area.

- **Universal Module – Universal Slide POU**. IHC Variable addition for data matrix bar code size to allow for a different variable value for an IHC vs. a "regular" bar code.

- **Admin Web Site – Service Provider Workflow Status Maintenance**. Overdue Days. Added this field to the maintenance screen to allow for the capture of a number of days that would indicate that an accession/case stayed in a status too long.

- **Admin Web Site – Service Provider Eligible Status Maintenance**. Created this screen as part of the service provider/outsourcing section of Assist. It allows for the capture of which status values are valid for the outsourcing/routing of work at the service provider level.

- **Admin Web Site – LIS Electronic Connections Maintenance**. Inbound/Outbound and Outbound Designation Fields. Added fields to allow for the marking of mainframe interface connections as inbound vs. outbound and to carry a designation of where the data originated.

- **Admin Web Site – Status Cross Reference Maintenance**. Created this screen to allow for the maintenance of status values for the service provider outsourcing section of Assist to match status values in Assist to status values inside an LIS/ERP.

- **Distribution Module. Scan History Checkbox Inaccuracy**. Resolved a report issue where scan history was not being "check off" correctly in the scenario that an accession was partially distributed. The screen was then reopened

and the accession was scanned again. The slides were checked off in order rather than by specimen/part causing objects to reflect as processed when they had not. This was ONLY an issue is a void transaction was not done the first time through the process.

- **Admin Web Site – Order Cancellation Report**. Created this report to provide visibility to order cancellation transactions. An order cancellation can be performed on a doctor order with required acknowledgement in an attempt to stop special cuts and stains to be performed that are not necessary.

- **Sample Testing – Multiple Tabs**. Require employee login. It was discovered that there were several retrieval transactions that could be performed without an employee being logged into the application. Added this edit check to all of the tabs retrieval buttons.

- **Stain Queue – On Demand Scanning**. Write to transaction log. When using the on demand scanning feature on the stain queue, added a write into the main Assist transaction log for the scan transaction for chain of custody tracking.

- **Stain Queue – Configuration Button Feature**. Added the standard Assist configuration change button to support multiple LIS formats when performing on demand scanning into the stain queue.

- **Sample Testing – Pickup Tab** – Selection criteria changes for accession number. Row count inclusion. Wait hourglass on retrieve and save. On the pickup tab added selection criteria to the screen for the accesson number and prefix. Also added a row count of data that was retrieved and added the wait hourglass on the retrieve and save button click events.

- **Sample Testing – Pickup Tab** - Auto Pickup Routine. Added an automatic pickup button to roll through all of the various sub labs and look for transactions against a sample testing package and mark it as picked up in case the pickup process does not happen.