Real-Time SPC Release Notes

If you have any questions regarding any of the indicated Bugs Fixed, Connector Updates, or New Connectors, please contact Minitab Technical Support, (www.minitab.com/support) and refer to any of the following: TT#, Case ID, or name if either of those are not included.

2023-08/22 (7.4 Release)

Feature

Purge Observation Table

- Real-Time SPC migrates quality data every 90 days into a Minitab Connect data table. Historic data within this table can be further analyzed using Minitab Connect's dashboarding tool or exported for further analysis in Minitab Statistical Software. By default, Real-Time SPC purges data after 90 days; however, users with appropriate permissions can configure the purging frequency and the time of day to perform the data purge.

Dashboard Enhancements
The performance enhancements apply to the Process Quality Snapshot (PQS) and the station dashboards.

- A collapsible control panel allows more workspace to view the quality charts.
- The date filter of the PQS is replaced with a new range selector that includes "Last X hours" and "Last X days" as well as a custom date range. The report updates when report settings are changed.
- Upon initial load of the PQS, user is required to select the product/process for initial selection. This saves time instead of loading all possible products and processes.

Bugs Fixed

- TT186379 - rtspc duplicate + move is missing some groups
- ADO178872 - For a split second edit source modal showing numbers instead of column names
- ADO180218 - If Pareto Chart has a category with no values, there's an error
- ADO192469 - Save button in Roles page acting strange after pressing "Discard Changes"
- ADO197398 - Extra padding added for observations outside of subgroup size in Manual/Connect Data Table
- ADO207261 - Setting Control Chart to EWMA and then pressing Discard Changes gives error
- ADO207901 - Descriptor list incorrectly populates on data collection form
- ADO210207 - Defects and Defectives: Points collected before Spec Limits set can still be marked as OOS

- ADO210399 - PQS: When editing an observation, we jump back to the top of the "Control Chart" list
- ADO211583 - Sorting on Supervisor Home reverts when a refresh occurs but still shows sorting icon
- ADO211626 - Improved Validation For Retain Days Decimal Values or Empty Values
- ADO211795 - Descriptor Options Modal Showing Column ID
- ADO211953 - PQS: Removing an Advanced Filter still shows the Saved Filter Name in the Dropdown
- ADO212601 - Changing provided mean defects for the severity level of the first defect type draws a stage line for all severity levels
- ADO213338 - Calculation Skipped for a Measure that has no AC/CA
- ADO213392 - Editing a point with enter values descriptor, then clicking point without descriptors gives error
- ADO215098 - Individual Comments should be written to all defect observations within the same subgroup and unit
- ADO216689 - Discard Changes should clear the validation of input boxes
- ADO216705 - Product Process template: Inconsistent error handling
- ADO217654 - Product/Process Additional Settings page: Input boxes do not work reliably
- ADO217766 - Station Data Source setup: source columns of descriptors disappear
- ADO218311 - Uploaded Images For Instructions In Sampling Plan Not Showing In SD
- ADO220486 - EWMA Preview: Incorrect results

2023-06/06 (7.3.1 Release)
Bugs Fixed
- ADO213601 - PQS: Having an advanced filter gives 400 errors when clicking on CAPA tab
- ADO213602 - PQS: Applying advanced filter not showing all control charts
- ADO213708 - Advanced filter not affecting AC/CA pareto chart
- ADO213720 - Removing Defect Type From Prod/Proc removes its pareto chart on PQS & Station Dashboard
- ADO213730 - Advanced filter not omitting points from range selection on PQS

2023-05-24 (7.3 Release)
Features
    Calculation for Bulk Import
- When data are imported, Real-Time SPC performs the necessary calculation on the entire batch of data.
    - Test results for each point in the batch use the summary statistics from the batch.

- o Real-Time SPC creates R chart or S chart for I-MR-R/S, using the same subgroup size rule as MSS.
- If the batch of observations is smaller than what is necessary for the recent observation/subgroup requirement found in the product and process settings, Real-Time SPC performs the calculations on the entire batch plus additional observations necessary to meet the minimum recent observation/subgroup requirement. However, only the results for the batch are updated based on the batch calculation; the results for any additional observations added to meet recent observation/subgroup requirement remain unchanged.

Timestamp Based on Time Column
- In cases where timestamps are different within the same subgroup, Real-Time SPC uses the first valid timestamp for the entire subgroup.

Bugs Fixed
- TT186268 - Error when attempting to change to Data Collection Form collection method
- ADO206381 - Issues with control chart navigator when there are a lot of samples
- ADO206770 - Roles Page: Longer role name pushes content off of card
- ADO207231 - Items in a dropdown control are cut off (global issue)
- ADO208505 - MTB engine error when collecting defects after removing the first defect type
- ADO208688 - DCF Connect Data Table: Edit source modal Control Chart Tab has extra white space
- ADO209022 - Submitting Blank Assignable Cause locks the modal
- ADO209268 - Station "Browse" dialog for data sources does not display nested folders
- ADO209420 - PQS: Navigating to Capability Analysis tab giving console error
- ADO209496 - Automatic Stations with Views using Custom SQL erroring over time
- ADO209497 - Typo in Observation Error
- ADO210251 - PQS deprecation warning for datetime
- ADO210406 - PQS: When editing an observation, we lose the station info in the right task pane
- ADO210884 - Wrong fixed control limits were used for defects
- ADO212409 - Station Configure: Defects Control Chart Settings not honoring changes to mean defects first time

2023-03-27 (7.2 Release)
Features
Access data from a Minitab Connect Data View

- Add an option to pull data from a Connect Data View within a Connect Data Table. If a data table does not have a data view, then the user selects "default view". This option applies to the data setup in the following data sources.
    1. With an automatic data collection, the user can specify a data view for the entire data collection plan.
    2. With a data collection form, the user can specify a data view for separate measures and descriptors in the data collection plan.

Bugs Fixed
- ADO178658 - Creating new Connect Table while in station "configure" page causes problems
- ADO179648 - Cannot upload images for variable Instructions on Product/Process/Sampling Plan page
- ADO182854 - "Edit processes" permission enabled, get 404 when editing a process
- ADO187008 - AbsoluteLowerLimit Error when pressing start on data collection
- ADO200617 - Deleting a column displays number in set data source/edit data source modals
- ADO201388 - TypeError when pressing Start after doing a file import
- ADO202054 - Data Collection Form Connect Data Table, Defects Edit Source Modal: Unit ID Dropdown contains "None" option
- ADO203281 - Purging a table causes 500 error when opening data collection form
- ADO203282 - List shows up on data collection form after the source table was deleted
- ADO203323 - Deleting Auto Import Source Table gives notifications in Connect
- ADO204173 - Auto: Add measure after source is set, set data source modal is emptied
- ADO204252 - Defect and Defective Source Columns in StationProcessMeasure not being cleaned up properly
- ADO204299 - Edit subgroup descriptor: item previously collected but no longer exits is not listed in the dropdown list
- ADO204474 - Station dashboard: archived descriptor list value that was not used before should not be in the dropdown of the Edit descriptor modal
- ADO204777 - Deleting Descriptor After Collection Makes It Show Up Wrong in Station Dash & PQS (until refresh)
- ADO204852 - Changing Select From List (Connect Data Table) Descriptor Source pulls in wrong values until refresh
- ADO205105 - Adding a new descriptor or measure causes wrong collection method
- ADO205289 - No warning on Station Setup when a new measure or descriptor was added to sampling plan after source was set
- ADO205502 - Re-enabling a measure/descriptor in a sampling plan causes duplicate data pulled into the Observation table
- ADO205545 - PQS Export: mid-stream case; exported data are incorrect

- ADO205961 - Subgroup and Timestamp Fields Persisting Column Selection
- ADO205973 - Incorrect position of dropdown list of upload image
- ADO206129 - Deleting View/Table while on Station Configure Page gives 404 errors when opening Set Data Source
- ADO207661 - Auto: Add Output Measure after source is set, no red warning triangle on station configure page
- ADO207165 - Auto import/Defect: Flow error in the case where an existing defect item was deleted and a new one was added

2023-01-31

Bugs Fixed

- TT185567 – Browser "out of memory" error due to not purging old, cached data.
- ADO181355 – The EWMA Chart isn't correcting handling cases that change subgroup size from 1 to a value greater than 1.
- ADO188983 – In the Data Collection Form, pressing Previous on first cell after pressing "Finish Now" gives an error.
- ADO179476 – In the StationProcessMeasure table, column IDs are missing for TimeColumn and SubgroupID fields for any measure added to a product process after source table is set.
- ADO184182 – The default weight value is missing in the Station setup dialog for EWMA Chart.
- ADO180062 – File Import is pulling incorrect data when there are multiple null values at the beginning of the source file.
- ADO181165 – Bars and labels are not aligned on the Corrective Actions Pareto chart in the Process Quality Snapshot.
- ADO183029 – After selecting a range on a UPRIME Chart in the Process Quality Snapshot, the browser may freeze.
- ADO185652 – The Pareto Chart for Assignable Causes is not filtering based on defect severity selected through the "For Measure" dropdown.
- ADO187155 – On the Configure Station Page, the source table is not cleaned up properly when measures are removed from the sampling plan.
- ADO177799 – There is a performance issue with the data collection form on the Station Dashboard.
- ADO177195 – HistoricInformation is null for product processes with a high number of measures.
- ADO187489 – Variable names with a leading space cause problems when creating capability analysis charts in Process Quality Snapshot.
- ADO197633 – On the Station dashboard, "Show data from" is not working.
- ADO191762 – On the Station dashboard, pause does not work.
- ADO201717 – Export worksheet could produce incorrect output

2022-09-28

Features

- [Descriptors.docx](#) - Descriptors are categorical variables that identify individual observations or subgroups.

Maintenance

- Change filtering behavior on the Process Quality Snapshot

    o Add a button to the top right corner of the left pane that is disabled when the page is opened or refreshed and enabled when any filter in the left pane changes value

    o Do not update the control charts until the button is clicked

    o Applying filters in the left pane will not reset the selections in the "For measure" and associated dropdown

Bugs Fixed

- ADO188610 XSChart preview on Process Quality Snapshot does not honor preference settings

- ADO188735 Capability charts not showing for Defect and Defective in the case when all tests were selected for Capability Analysis

2022-08-23
Bugs Fixed

- ADO184303 Process Quality Snapshot: Switching from a saved filter to a product process with an Assignable Cause and Corrective Action shows None as the incorrect value for those fields.
- ADO184350: Not all data populated to the data collection grid for IMR chart and semi-automatic collection.
- ADO184418 Only the most recent data are pulled when the defined subgroup size for a defect measure is 1 and the sampling plan does not have a measure associated with IMR or EWMA with subgroup size = 1.
- ADO184589 When switching from data collection form to automatic collection, the Start button should no longer display.
- ADO181487 The Defects +/- buttons do not work in the data collection form with semi-automatic collection after pressing Continue from the *Automatic data are not available* dialog.
- ADO180603 Collect Startup sample ignores set time interval
- ADO178753 Defects Edit source modal should include UnitID
- ADO180624 Station Dashboard does not update the new status of the station
- ADO182895 File import dialog: controls slightly run off the edge of the dialog
- ADO182897 File import template should be available after it's created
- ADO184455 Increase reliability for pulling from key vault

2022-06-29
Bugs Fixed

- ADO178347 IMR-RS preferences – wrong unbiasing check box used for S chart preference.

- ADO178443 Next collection note for timer inconsistency between Operations Dashboard and Station Dashboard.
- ADO178753 UnitID should be included as an editable dropdown in the Data Source edit dialog.
- ADO178591 Editing an observation leads to incorrect sample calculations.
- ADO182102 Export Data – defect types for the same severity level should be combined.
- ADO182554 IMR-S chart displays wrong values for control limits in the 3rd chart.
- ADO182845 PQS Preview is not working.
- ADO179368 Set global preferences as defaults.
- ADO183313 Flows not properly cleaned up on RTSPC.
- ADO184051 Semi-automatic input is pulling all data instead of one per unit when there are defects.

2022-05-25

Feature Enhancements
- Automatic Import: Defects can now be handled in the same table as continuous measurements and defectives.
- Automatic Import: Pull data until the last valid number when the number of data records is greater than the defined subgroup size.

Maintenance
- Reduce the number of API calls in the station dashboard. The charts and collection timestamp get updated as they used to, on a 10 second interval. Anything else operates on a 2-minute interval to reduce server load.

Bugs Fixed
- ADO178346 Blank processes should not be added to the product.
- ADO181489 Semi-automatic collection of defects not working after creating a defect severity level.

2022-05-02

Features
- **Automatic Import –** Allows users to automatically import data from Connect data tables in one or more subgroups, containing multiple measurements on the same part/product.
- **Data Collection Form** – The existing functionality from the **Connect Data Table** import has been modified and renamed to **Data Collection Form**. It now retrieves the latest subgroup from the Connect Data Table and uses the subgroup to populate the Data Collection Form. You will need to reconnect the product process with the station, which will automatically update the data flow upon upgrading to the latest version of SPC. The newest subgroup will be populated for manual data collection in the Data Collection Form.

Bugs Fixed
- ADO#168685 – Process Quality Snapshot Control Charts: switching the x-axis label sorted the charts in alphabetical order instead of preserving the original order.
- ADO#158679 – Process Quality Snapshot: product/process dropdown doesn't remember selection location.
- ADO#169108 – Process Quality Snapshot BWCAPA: Numbers in tooltips were not rounded to 6 significant digits.

- ADO#170469 – Users without permissions to view non-SPC tables could still view parent folder storing tables.
- ADO#171237 – Graphical bug with truncating long workflow names on the Workflow Library.
- ADO#176902 – Process Quality Snapshot and Station Dashboard: Right pane displays n-1 observations instead of n observations.
- ADO#169236 – Station setup: Product/Process selector should populate the Process field with the 1st process in the list.
- ADO#169040 – Between/Within breadcrumb is clipped on the Engineering Preferences page.
- ADO#166070 – Product/Process Specifications' error handling does not highlight incorrect boxes for all settings affected by improper user input.
- ADO#168824 – Supervisor home: changing from shutdown to running doesn't show the updated timestamp immediately.
- ADO#168825 – Station Dashboard: turning station off and on only resets the active chart's timer.
- ADO#177080 – Process Quality Snapshot: typing in dates does not limit users to 4-digit years.
- ADO#175457 – C-Chart and NP-Chart: Upper and Lower Specification Limits should be updated when subgroup size changes.
- ADO#174214 – Deleting a severity level that's used for data collection does not reflect appropriately in the updated graphs.
- ADO#168584 – Product Process Setup: Mathematical bounds for Box-Cox transformation not honored in input boxes.

2022-04-21
Bugs Fixed
- TT#185465 – Application continuously becomes unresponsive.
- TT#185352 – 500 errors when attempting to save multiple measures in a process template.

2022-04-15
Bugs Fixed
- ADO#173649 - Incorrect last imported counter for old tables.
- TT#185325 - Refresh period for IM-R charts unintuitive, drops data entry.
- ADO#175966 – Multiple Defect Types: Incorrect subgroup size when deleting or adding an observation.
- ADO#176814 – Connect Data Form: Defects import nulls as zeros instead of nulls (--).
- ADO#176692 – Server error when entering certain "to" dates in the Process Quality Snapshot.
- ADO#172733 – Manage Users Search function errors when searching multiple letters.
- ADO#175779 – Process Quality Snapshot: Typing in a date change triggers errors and incorrect behavior.
- ADO#173455 – Measures in sampling plan aren't sorted.
- ADO#173588 – The search field in the station page has a slight offset.
- TT#185353 – Server errors when attempting to save multiple measures in a process template.
- ADO#174146 – Charts don't update when editing defect/defectives if the subgroup size is 1.
- ADO#174200 – No email notification is sent to alert users when a station is shut down.
- ADO#175069 – Previous semi-automatic data collection is inconsistent when the data is updated in a shutdown/idle station.
- ADO#175203 – Edit observation: FailedControl isn't flagged in the database column, affecting visualizations for out-of-control, out-of-action, EWMA, and XBar-R.

- ADO#172942 – Idle and Shutdown do not pause the collection timer for timed interval automatic.

2022-03-02
Features
- Non-Normal Capability Analysis – Some processes do not follow a normal distribution and so customers can now fit a non-normal distribution, which is often preferable to using a box-Cox transformation because of its ease of interpretation.

Bugs Fixed
- ADO#168859 iPad OS (Safari and Chrome browsers): User can only enter single digit numbers.
- ADO#169510 Mac Safari: Users can only enter one value in data collection.
- TT#185207 No sampling plan and No recent data messages showing on Station Dashboard when data has been entered
- TT#184956 Images/icons are being displayed as text if they cannot be downloaded
- ADO170597 Input field lengths not consistent
- ADO#163520 Process Quality Snapshot: previewing new limits does not honor the current preference settings
- ADO#167945 Checking and unchecking BoxCox leaves Save and Discard Changes active
- ADO#168812 Saved filters that saved before the integration of the updated product/process selector do not work properly

2022-02-23
Bugs Fixed
- TT#185327 – EWMA fixes to flag out of action points and to hide spec limits on this chart

2022-01-26
Features
- Exponentially Weighted Moving Average (EWMA) Chart – This chart performs well in detecting small shifts in the process mean.
- Select Product-Process Usability Improvement – In an effort to replace the dropdown control that can be difficult for finding processes that have similar names, a modal-based browsing experience has been implemented.

Bugs Fixed
- ADO#166955 BoxCox transformation should not change graph title of Binomial and Poisson Capability charts since the transformation is not applied.
- ADO#166455 Data Warning message is not enter-key friendly.
- ADO#165800 Process Quality Snapshot gear may not show default values after you click Restore Historical Limits.
- ADO#165590 Defect severity: old name is used on the data collection form after the severity has been renamed.
- ADO#165555 Can't press ENTER key for OK in Edit Observations dialogs associated with continuous measures.
- ADO#164386 Process Quality Snapshot range selection does not use the current preference settings for calculating summary statistics.

- ADO#165167 Defect and Defective text should be clickable on the Process setup screens.
- ADO#160572 Annotation icon should not flag a point that has white space only in the comment box.
- ADO#15696 Hierarchy Groups may switch levels when adding/deleting/editing groups.
- ADO#161370 Non-Administrator user cannot save Hierarchy Groups.
- ADO#161722 Process Quality Snapshot restore control limits – clicking the gear icon does not clear the selection.
- ADO#159566 Any item added in the workflow library should be sorted alphabetically by name.
- ADO#160391 Early stage break triggers half samples.
- ADO#161736 Process Quality Snapshot range selection is not working properly after Preview New Limits.
- ADO#161347 An observation that is out-of-spec or action should be flagged even when the MSS engine returns an error code.
- ADO#163150 Assignable causes and corrective actions are missing for processes that were archived.
- ADO#163419 Process Quality Snapshot Pareto tab not showing up for a process that was archived.
- ADO#163517 Process Quality Snapshot task pane should use all data points to calculate the summary stats when it's opened.
- ADO#161745 Renaming/Deleting a defect severity in Preferences causes "no recent data" error to be displayed.
- ADO#159612 Allow ENTER key to select OK in warning and error popups.
- ADO#163241 Alignment of controls on Station > Configure > Edit > Control Chart screen.
- ADO#159243 Message should not show when using calculated or no control limits.

2022-01-03
Bugs Fixed
- ADO#165089 Deleting non-default filter reverts to None filters.
- ADO#164325 When adding a new defect severity level, CChart is always used for plotting the data that uses that severity level.
- ADO#164208 Product process triggers Save without changes.

2021-12-08
Bugs Fixed
- TT#184872 App does not respond when attempting to re-save newly created process measures.
- Automatic data import ignores data within minute of import.
- Newly created user roles require refresh to be used.
- Order of control charts on the Process Quality Snapshot and Station Dashboard should order by type first (process measures, output measures, defects, defectives) and then alphabetically within each type.

Maintenance
- Update the default to "By column" instead of "By row" on data collection forms.
- The 'Number of observations' and 'Number of subgroups' fields are now available in the product-process settings page when control limits are turned off. These fields will then dictate the observations/subgroups used to calculate the center line.

2021-11-17

Features
- Edit Observations – An edit of an individual observation will follow the same workflow as entering an observation and submitting a subgroup that includes the edited observation. Users must have permission to edit observations. The current "Modify flagged points" permission will be updated to "Modify existing data".

Bugs Fixed
- TT#184846 Setup goes to 404 when editing a station process with deleted Connect table
- For manual imports, the Import button should not be available when a collection includes only discrete data
- Auto-import for defectives misses zeros
- PQS right pane: out-of-spec label wraps
- PQS defect chart: no longer shows correct individual observation if the product process was archived
- PQS defective chart: defective types are missing if the associated process was archived

2021-11-08
Bugs Fixed
- TT#184937 Access to folders not getting enabled when Hierarchy Group is named "Product", "Process", or "Station"

2021-10-28

Features
- Export Data to Minitab – the Process Quality Snapshot now includes a feature to export data to Minitab and a CSV file.

Bugs Fixed
- TT184480 XBar-R chart not displaying until after refresh
- TT184678 Long wait cursor (spinning wheel) occurs periodically in workflow library
- TT184797 Trailing white spaces in hierarchy group names causes application to spin
- Test failure labels are not showing consistently
- I-MR ignores Observations in control limit preferences
- I-MR-RS mishandles MSS engine error
- C Chart center line doesn't respond to number of subgroups
- C Chart USL vanishes for nulls
- Adding limit lines renders inconsistent chart
- Adding a comment to a null observation not working properly
- PQS: clicking the gear icon does not clear the selection
- PQS: right pane shows same measure name for different control charts
- Tag Library: deleting tags doesn't always work
- Process Step page (defects/defectives): Pressing "Enter" key saves changes
- I-MR-RS ignores nulls and obs count for center line
- Nulls make some data display odd
- User-entered values are rounded

Maintenance

- Format Numbers consistent across all visualizations

    o For user-entered data, display values as entered.

    o For calculated statistics,

      Set X = Abs(Y) and moving from 1) to 4) to decide on format:

      1) if X >= 1E+9 or 0 < abs(X) < 1E-6, use Exponential notation

      2) If X>=1,000,000 then integer

      3) if X < 1 then up to 6 significant digits with a maximum of 6 decimal places

      4) if X < 1,000,000 then up to 6 significant digits

    o For calculated percentages, use 4 significant digits

    o Special cases may exist that will be handled on a case-by-case basis

2021-10-07

Bugs Fixed

- C Chart – footnote displayed when it doesn't apply
- "No Data" message incorrectly displays in some cases
- Station doesn't show import data source
- PCAPA/BCAPA - failed tests not flagged in U or P charts
- PQS/Station dashboard – range selection should open right pane and include summary stats info and input fields
- Always show summary stats in the right pane, even when "Do not use control limits" is set in the station or product templates.
- The label for a failed test remains visible after chart is scrolling point out of view.
- When the data source of a station is imported from a table, the Last Imported timer is not reset.
- Data import needs to show first variable
- In the Operator home, the "Activate the plan" button should be removed for importing data and "Last imported" should be "pending" if there is no data imported yet in both the Operator home and Station dashboard.

Maintenance

- Updates to Supervisor Home display in Next Collection column
    o If a station has only automatic sampling plans, Next Collection will say "Automatic"
    o If a station has mixed sampling plans (at least one automatic and one manual), Next Collection will always show manual sampling plan's information.
- Remove the folder icon from Group items

2021-09-15

Features
- Control Limit account for Unequal Subgroup Size

In V1, when the data is collected, the control limits properly accounted for subgroup size. In this release, the subgroup size is properly reflected in the control limit calculations for previous points when new data is collected; and is displayed appropriately on the control chart.

- Turn off control limits

The user now has the option to turn off the control limits on the control charts within the setup area. We will continue to display the centerline on the charts.

If control limits are turned off for a measure, all control charts for the measure:
1) Will not display the control limits
2) Only tests 2, 3, 4 (series tests) will continue to alarm if chosen by the user

Bugs Fixed
- PQS: date/time index only shows Eastern Time
- CL labels disappear when scrolling the chart to the left
- Roles: saving prompts unsaved changes popup