KS6800A Data Analytics Web Service Software

Version 2.7.0

| Released Date: | 25 October 2023 |
|--------------------|--|
| Operating System: | Microsoft Windows 10 |
| File Name: | PathWaveMeasurementAnalytics2023-u7-0-win-x64.exe |
| Component Version: | Installer: 2.7.0, UI: 5.0.1, Backend: 4.0.0, Dfdb:6.0.1, Mechar: 1.2.0 |
| License | KS6810A |
| | KS6811A |
| | KS6812A |
| | KS6820A |
| | |

- CPK Feature for deeper insights into measurement distribution
- Reference Dataset Feature to compare new measurements against Reference data
 - o Simple interface to map Reference Dataset for measurement datasets
 - o Trace overlay for scatter & line charts
 - Reference now available in Box & Whisker chart
- New Limits Panel that drives Limits & Reference charting functionality
 - o Create Limit Envelopes based off Reference Trace
 - o Constant Column Limits available now in scatter & line charts
 - o Show/ Hide toggle for Limits & Reference
- Improved data import & charting features
- Various bug fixes





Version 2.6.4

| Released Date: | 11 August 2023 |
|--------------------|--|
| Component Version: | Installer: 2.6.4, UI: 3.6.0, Backend: 3.3.1, Dfdb:5.4.1, Mechar: 1.2.0 |

New Features and Enhancements

- Expanded functionality for stacked bar mode for Pareto & Histogram charts
- Improved Transform & Explain Features
- Increased datetime handling capabilities
- Enhanced Features & Outliers Page's statistics tests
- Various bug & chart canvas fixes

Version 2.6.3

| Released Date: | 15 June 2023 |
|--------------------|--|
| Component Version: | Installer: 2.6.3, UI: 3.5.0, Backend: 3.3.1, Dfdb:5.3.1, Mechar: 1.1.0 |

New Features and Enhancements

- Implemented stacked bar mode for Pareto & Histogram charts to improve granularity in analyses
- Increased unique bucket counts for Pareto charts
- Improved Explain Feature functionality

Version 2.6.2

| Released Date: | 22 March 2023 |
|--------------------|---|
| Component Version: | Installer: 2.6.2, UI: 3.4.0, Backend: 3.3.1, Dfdb: 5.2.1, Mechar: 1.1.0 |

- Improved plugin support
- Fixed line chart bug for categorical axis



Version 2.6.1

| Released Date: | 22 February 2023 |
|--------------------|---|
| Component Version: | Installer: 2.6.1, UI: 3.4.0, Backend: 3.2.0, Dfdb: 5.1.5, Mechar: 1.1.0 |

New Features and Enhancements

- Fixed bug for Explain Feature

Version 2.6.0

| Released Date: | 16 February 2023 |
|--------------------|---|
| Component Version: | Installer: 2.6, UI: 3.4.0, Backend: 3.2.0, Dfdb: 5.1.4, Mechar: 1.1.0 |

New Features and Enhancements

- Improved charting and data transformation functionality
- Added file format flexibility for download
- Toggle between dark/ light color theme
- Refined interface labels for ease of use

Version 2.5.1

| Released Date: | 14 December 2022 |
|--------------------|---|
| Component Version: | Installer: 2.5.1 UI: 3.2.1 Backend: 3.1.0 Dfdb: 5.0.1 Mechar: 1.0.0 |

- Numerous bug fixes for stability and performance
- Improved visualization capabilities and layouts



Version 2.5.0

| Released Date: | 29 September 2022 |
|---------------------|---|
| Component Versions: | Installer: 2.5.0 UI: 3.1.0 Backend: 3.1.0 Dfdb: 3.1.525 |
| | Mechar: 1.0.0 |

New Features and Enhancements

- Added data manipulation capabilities into table viewer
 - o Summarize or reformat data with various aggregation methods
- Improved support for data visualization configuration
- Created transform functionality (e.g., log transformations) to produce more impactful charts
- Upgraded filter features for faster analyses
- Added data splits to improve drilldown capabilities in visualizations
- Numerous bug fixes for stability and performance

Version 2.4.1

| Released Date: | 30 July 2020 |
|---------------------|---|
| Component Versions: | Installer: 2.4.1-46 UI: 3.0.0 Backend: 3.0.72 Dfdb: 3.1.192 |
| | Mechar: 1.0.0 |

- Numerous bug fixes for stability and performance
- Updated chart automation service to run against parquet storage
- Reworked the GUI to correspond to Keysight standard styling and workflow
- Changed GUI plotting engine. The new engine supports zoom & pan and higher quality charting
- Added a features & outliers workflow which can help customers learn about their data and detect possible outliers
- The Python SDK has been improved and the documentation updated to support custom analytics on data stored by KS68400A



Version 2.3.2

| Released Date: | 27 February 2020 |
|---------------------|---------------------------------------|
| Component Versions: | UI: 1.0.90 Server:2.2.74 Dfdb: 3.1.81 |

New Features and Enhancements

- Switched backend storage for data from postgresql to parquet
- Switched backend analysis from Node to 5 Python
- Significant improvements to performance and scale
- No new functionality but previous functionality should be preserved

Version 2.3.1

| Released Date: | 10 December 2019 |
|---------------------|--------------------------|
| Component Versions: | UI: 1.0.83 Server:2.2.73 |

New Features and Enhancements

- Numerous bug fixes
- Expanded support for plugins and automation
- Users can now automatically select limits
- Users can now automatically select outliers
- Users can use their own datasets or a given mean/standard deviation as a baseline

Version 2.2.5

| Released Date: | 20 September 2019 |
|---------------------|--------------------------|
| Component Versions: | UI: 1.0.57 Server:2.2.47 |

- Significant stability fixes when fetching columns larger than 500,000 rows
- Fixed a bug which would cause the server to be unable to startup if there were more than 15 million cells in the dataset



Version 2.2.4

| Released Date: | 26 August 2019 |
|---------------------|--------------------------|
| Component Versions: | UI: 1.0.56 Server:2.2.43 |

New Features and Enhancements

- The UI will now display meaningful names for filters. So it will display "((field <= 30) OR (field > 30))" instead of "filter 1" or "bucket 1".
- The add filter and create split workflows have been slightly modified to better support customers with a big hierarchy of fields. Instead of an autocomplete entry it will now open a dialog to choose a field.
- Added X axis labels when a chart is given an X axis
- Improved the display of field names in a few areas
- Increased the upload limit from 10MB to 100MB
- Fixed some issues encountered when importing "null" values. This could be caused by exporting as JSON and then trying to reimport that JSON file.
- Fixed a bug which would cause error messages to be displayed on the GUI when navigating from one dataset to another without refreshing the page.

Version 2.2.3

| Released Date: | 10 June 2019 |
|---------------------|--------------------------|
| Component Versions: | UI: 1.0.42 Server:2.2.23 |

- The UI now reports an "app version" instead of a "UI version" and a "server version". The app version matches the installer version and makes more sense to users of the UI. The APIs for the other versions are still intact for third party consumers.
- Better GUI support for cases where there is a large number of fields. There are new scrollbars and search fields in a variety of dialogs and views.
- Better GUI support for long running operations. Progress indicators have been added to make it clear when data is being loaded form the server.
- Added support for "hidden" fields. A field can be hidden / unhidden in the dataset management view. When hidden a field will not show up in any other place in the UI.
- Various bug fixes in the GUI around stale data and robustness.



Version 2.2.2

| Released Date: | 18 February 2019 |
|---------------------|-------------------------|
| Component Versions: | UI: 1.0.31 Server:2.2.3 |

New Features and Enhancements

- Fixed an issue that prevented the "table mode" button from displaying correctly. Table mode is used to view the current data as a table and necessary for downloading attachments.
- Fixed several issues in the C# legacy API client
- Fixed an issue where the fine-tune charting control was not working correctly.
- Fixed an issue preventing the user from removing a baseline from a field after applying it. The "clear" button now appears for baseline configuration.

Version 2.2.1

| Released Date: | 4 February 2019 | |
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- Added support for Pareto graphing.
- Added Measurement Correlation Canvas to allow more than one measurement to be viewed at once and analyzed together.
- Added support for CSV upload via remote interface.
- Added industry data overly support for any uploaded data with the KS6830A option.
- Installer improvements.
- Explain button improvements.
- Datatype sensitive filtering.
- Changed to the following new license:
 - o KS6810A Data Analytics Web Service Software (1 license)
 - o KS6811A Data Analytics Web Service Software (15 license)
 - o KS6812A Data Analytics Web Service Software (unlimited/corporate license)
 - o KS6820A Data Analytics Web Service Software (Advance version)
 - o KS6830A USB3.1 Industry Data Software



Version 2.1.7

| Released Date: | 28 August 2018 |
|----------------|----------------|
| Released Date. | 28 August 2018 |

New Features and Enhancements

- Fixed an issue where the ExplainNet integration would not work if the column had a version type
- Added support for new configuration

Version 2.1.6

New Features and Enhancements

- Fixed an issue where the units label was displayed in the incorrect location in charts Added support for new configuration
- Fixed an issue where the "hide" button was not working correctly for charts

Version 2.1.5

| Released Date: | 16 May 2018 |
|----------------|-------------|
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- Fixed an issue with CSV export/download. The generated CSV files were not including measurement definitions that had the group field set.
- Fixed an issue with filtering. If a histogram was filtered then the axis was not updating (and the bucket ranges were not updating) to adjust to the potentially new filtered limits
- Added the ability to manually configure axes.
- Improved performance of CSV import considerably.
- Improved the CSV importer so that waveforms can now be imported alongside measurements & properties with the condition that there is only one set of X values and one waveform per row.



Version 2.1.4

| Released Date: 1 May 2018 | | 1 Way 2010 | |
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New Features and Enhancements

- Fixed an issue which would cause the client to be cached and updates to go potentially unnoticed unless the client was forcibly refreshed with Ctrl-F5.
- Several performance improvements were made to the client.

Version 2.1.3

| Released Date: | 20 April 2018 |
|----------------|---------------|

New Features and Enhancements

- Fixed an issue which would prevent the user from being able to configure dataset permissions.

Version 2.1.2

| Released Date: | 17 April 2018 |
|----------------|---------------|
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- Changed the API client to target .NET 4.5 instead of .NET 4.5.2. The API client still targets .NET standard 1.1 which is the preferred integration for anyone using VS2017 or newer (or an older version of VS with a newer version of NuGet).
- Changed the installer so that it no longer prompts the user to reboot the system partway through the install.
- Upgraded the internal Node redistribution to version 8.11.1. This provides a number of security fixes to the chart service API.
- Fixed an issue which would cause an installation on a clean system (one that did not have N8844A installed previously) to fail
- Fixed the location of the chart service API's log files.
- Improved the robustness of the CSV import process.
- Added support in the CSV import for dates formatted as YYYY.MM.DD HH:mm:ss. This is in addition the currently supported formats (ISO 8601 and RFC 2822).



Version 2.1.1

Released Date: 14 March 2018

- Fixed an issue with CSV import performance.
- Fixed an issue where the X axis was not displaying correctly when the X axis was a property.
- Reworked the CSV import UI. It now allows the user to specify the property type for properties that are imported.