Connecting Klippel QC and WATS AN81

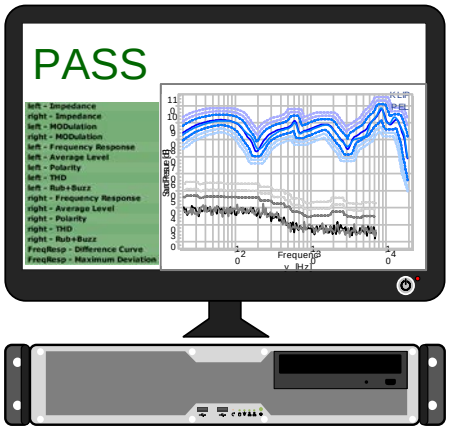
Interface of the KLIPPEL QC SYSTEM (Document Revision 1.0)

FEATURES

- Integrate Klippel QC data into WATS
- Automated Data Collection with the WATS Client
- Use cloud-based data transfer
- Test Data Analytics
- Distributed Data Dashboards

BENEFITS

- Detect production problems and react in real time
- Smooth interface and organization of statistical calculations
- Hassle free access to monitor different manufacturing locations
- Yield and asset management
- Define alarms for pre-defined scenarios (e.g. yield drops at a specific factory)
- Design test flows for manual tests to ensure full unit traceability



DESCRIPTION

The statistical analysis of the end-of-line tests in any factory is a powerful tool to understand and detect early production problems. As a consequence, the global analysis of the QC data leads to an improvement in the efficiency of the overall product manufacturing.

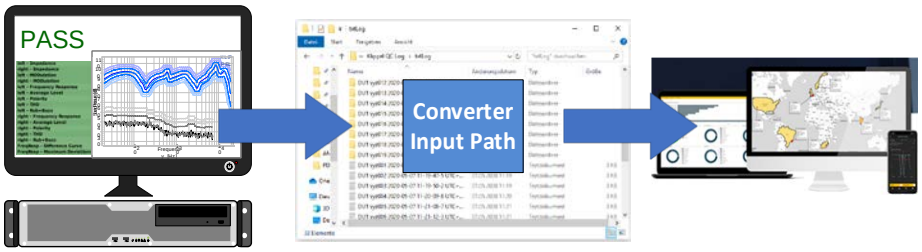
In order to achieve this global analysis using Klippel QC data, Virinco and Klippel have developed a converter that allows importing test data generated by the Klippel QC System into WATS automatically for further analysis.

This application note describes the integration of the Klippel QC data into WATS platform.

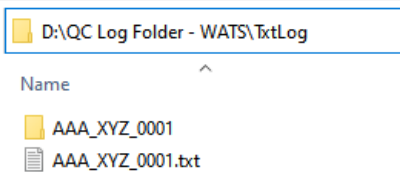
A video is available showing the setup and application of this interface.

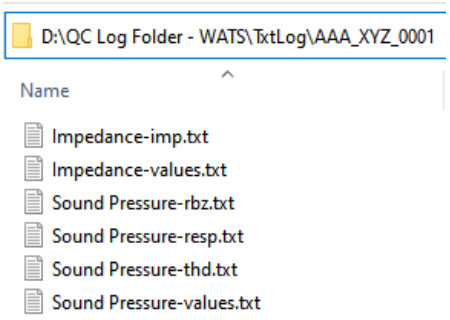
CONTENT

1 Overview

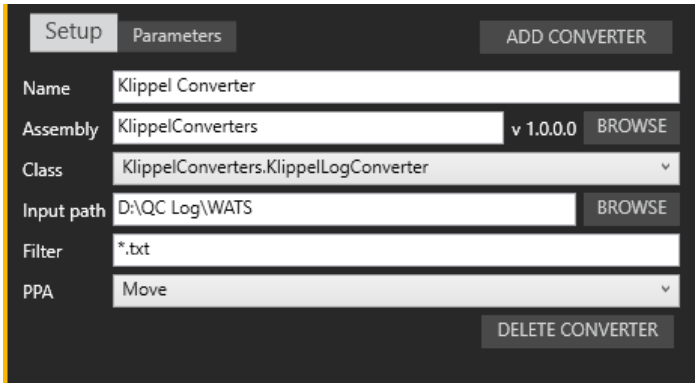
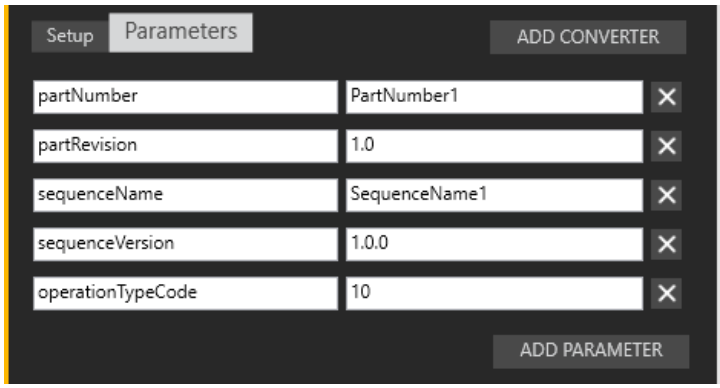
Principle	The integration of the Klippel QC data into the WATS platform is carried out by a converter, which processes and uploads automatically the QC results in real-time after every single measurement. The converter processes the QC data stored in text files, which are created and located in a defined path automatically by the QC system after every measurement. 

2 Klippel QC

Principle	Since the converter processes the QC results stored in text files, the QC System is responsible for exporting and storing the results in the input path of the converter. In addition to the measurement results, the verdicts as well as other configuration data is required to offer a complete overview of the production line performance in the WATS platform. After every measurement, the QC system collects the required data automatically and exports it to the converter input path.
Configuration of QC test	The feature library **Data Logging to Text File** is required to export the measurement results and the required information into text files. This feature library exports single values and the curve data of measurement tasks. Furthermore, additional information as the configuration and verdict can be exported in a metadata text file. A complete description of this feature library, including how to enable and configure it, is available in the QC Manual “Feature Libraries”.
Converter Input Path	The WATS converter only processes the measurement results if a metadata file is saved in the input path. The directory and name conventions are: • Metadata file: `<Converter Input Path>\<Serial Number DUT>.txt` • Results folder: `<Converter Input Path>\<Serial Number DUT>\` In the next example the input path of the converter is `D:\QC Log Folder - WATS\TxtLog` and the DUT serial number is `AAA_XYZ_0001`:  AAA_XYZ_0001.txt holds the meta data while in the folder the measurement results are stored:

3 WATS / Virinco

WATS Client	The converter runs as a plugin to the WATS Client. The installation guide for the WATS Client can be found at wats.com/download. How to install the converter is described in the Converter Setup section in the installation guide.
Converter Input Path	In the WATS Client, the converter must be configured to the same input path as where the QC system exports QC data. The filter should be `*.txt`. 
Default Converter Parameters	In the parameters tab in the WATS Client you can set the default parameters that will be used if they are not included in the metadata file. If you need multiple sets of parameter values, you can install the converter multiple times with different input path and different values. The parameters are: • `partNumber` – The part number of the DUT. • `partRevision` – The revision number of the DUT. • `sequenceName` – The name of the test step sequence. • `sequenceVersion` – The version of the test step sequence. • `operationTypeCode` – The WATS operation type (code 100: End of line test) 

4 Requirements

Hardware (Klippel)	• Klippel Dongle
Software (Klippel)	• QC version 6 or newer • Feature Library (included, not licensed)
Software (WATS)	• WATS Client 5.1 or newer • WATS Client Klippel Converter

5 Limitations

Supported QC Tasks	• Sound Pressure (SPL) • Sound Pressure + Impedance (SPL-IMP) • Impedance (IMP) • Motor + Suspension Test (MSC) • Linear Suspension Test (LST) • Spectrum Analysis (SAN)
WATS	• Data size per month and WATS features are limited by WATS subscription plan. See wats.com/price-and-compare for more information.

6 References

Video	A video showing the setup of Klippel QC and interfacing to WATS is available from the Klippel website: link
Related Modules	• STAT • dB Extract • YST • Automation Data Access
Manuals	• Klippel QC Manual • Klippel Feature Libraries Manual • WATS Client Installation Guide
Links	• wats.com/download • github.com/Virinco/WATS-Client-Converter-Klippel

Find explanations for symbols at:

http://www.klippel.de/know-how/literature.html

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Designs and specifications are subject to change without notice due to modifications or improvements.