January 2015

WATS Server 2015.1 Release Note
Version 4.2.12

Release WATS Server 4.2.12

This release overview contains information about new features in
WATS Server 4.2.12
For more information about WATS, please visit
www.virinco.com/wats

Major Feature Areas

- Test step yield and analysis
    - Step execution time report (chart)
    - *Run* details
    - Western Electric Rules
    - New chart (zoom)
    - Details view on Boolean and String steps
- Root Cause module improvements
- Connection & Execution time report
- New dashboard component: RCA
- Manual Inspection – New features
- Misc
    - Workflow
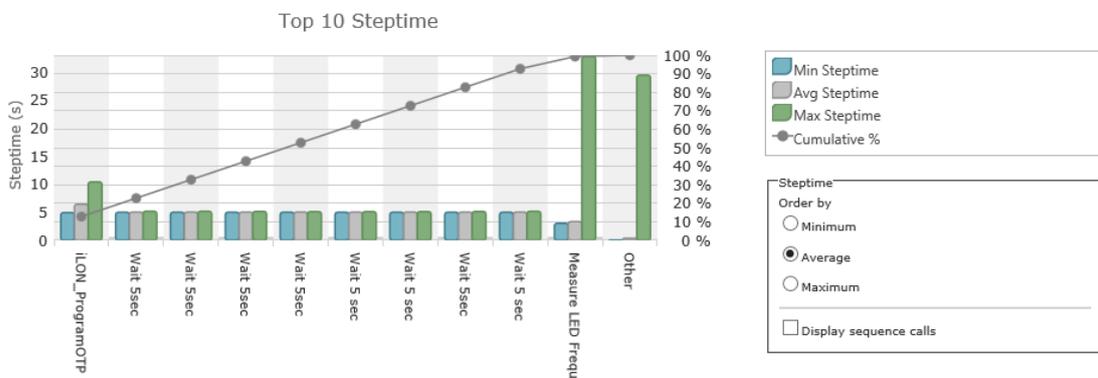   - Select multiple in filter (Operation, Status)

WATS Reporting

Test Step Yield & Analysis

Step time report

A chart will now display top 10 steps that consume most execution time. By default, the chart is ordered by average step execution time. You can also select to order by maximum/minimum execution time.

The top 10 failures chart also has a new summary "step" named other. This bar represent the rest of the step failures.
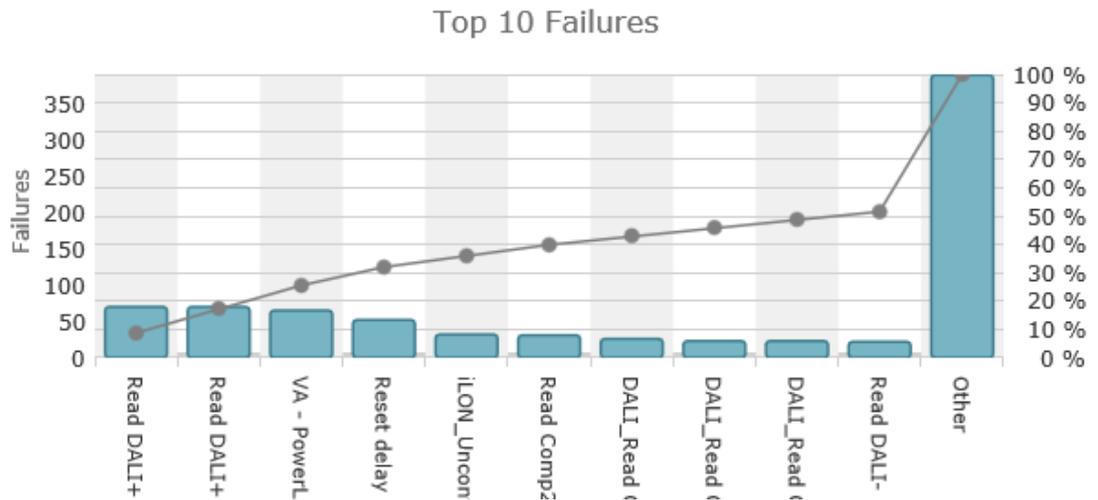
New columns has also been added to the step list.
Terminated (step status), other (unknown status, not the same as "other" in the pareto chart), Min-/Avg-/Max- step time.

Step Name	Total #	Fail #	Error #	Terminated #	Other #	Min Steptime (s)	Avg Steptime (s)	Max Steptime (s)
MainSequence Callback	600	160	0	0	0	6.58	60.40	177.22

Run details
The default TSY&A filter contains a "Run" option allowing you to look at units only tested first run, second run etc. Selecting e.g. second run would only return results for unit tested second time, often a lower count than first run.
A new option in the "details view" allow you to override this filter setting but also aggregate data to look at first and second run in the same chart. For details, please see
https://virinco.zendesk.com/entries/78960175.

Step name: /Measurement 1

Step yield:
■ Failed: 30.00% (3/10)
■ Passed: 70.00% (7/10)

Step Type: 🔢 NumericLimitTest

Avg. steptime:0.003
Max steptime: 0.004
Min steptime: 0.003

All
First Run (1)
Second Run (2)
Second and earlier (1 + 2)
Third Run (3)
Third and earlier (1 + 2 + 3)
Last Run

Loop iteration default ⌄ Run

Analyse step with GR&R   Analyse Chart Data

─Measurement Chart─
☐ Edit Y-axis   ☐ Edit Limits   ☐ Filter Measures   Number of measurements   ☐ Filter Failed Measures

Western Electric Rules
The Western Electric Rules are decision rules for detecting "out-of-control" or non-random conditions on control charts.

The rules attempt to distinguish unnatural patterns from natural patterns based on several criteria:

1. The absence of points near the centre line (identified as a mixture pattern)
2. The absence of points near the control limits (identified as a stratification pattern)
3. The presence of points outside the control limits (identified as an instability pattern)
4. Other unnatural patterns (systematic (auto correlative), repetition, trend patterns)

To achieve this, the rules divide the chart into zones, measured in units of standard deviation (σ) between the centre line and control limits.

You can apply these rules to a dataset in WATS by checking the "Western Electric Rule" box.
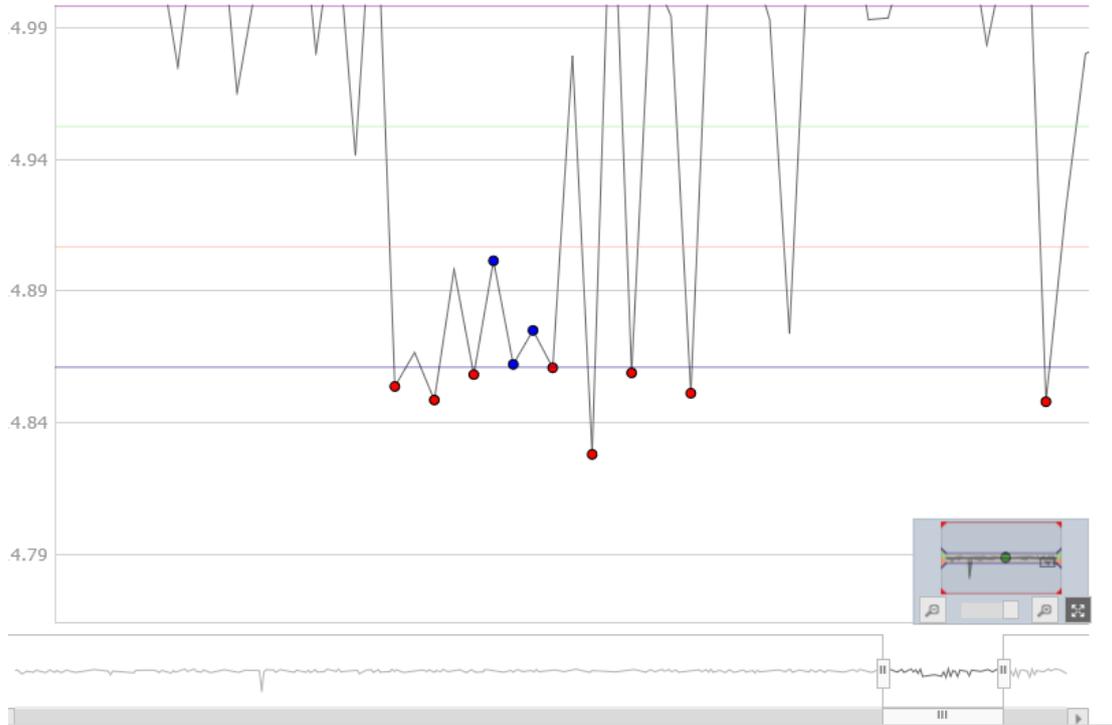

WATS will highlight data points where one of the rules has been detected. Hold the mouse over for details. Below are the default rules.
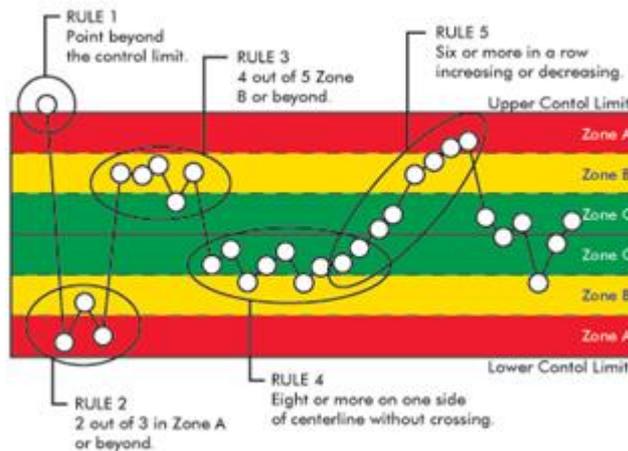
New zoom able chart
The new chart allow you to use the mouse wheel to zoom in/out in the trend chart.

Details view on Boolean and String steps
You can new get details view on String and Boolean test steps with results listed in tables.

Root Cause module improvements

The module has many general improvements on usability. In addition, when creating a ticket from the UUT Report or UUR Report list (linked to the UUT/UUR report), an icon illustrates that the report has an "assigned" ticket (as shown below). Click on the RCA icon to open the ticket for details.

Connection & Execution time report

This report is now located below the "Station" reports with improved filtering options. In addition, average execution time is now available.

Manual Inspection

- You can now select whether or not to "Require UUR Report" when the operator fails the MI.
- New step types: *Wait* and *Set Process*.
  Use the **Wait step** to force MI to pause/wait a given time until allowing the operator to continue. The Operator Interface will show a timer count down.
  Use the **Set Process** step to update the Unit status in MES
- Operators can now add step comments (to the report)
- Improved image attachment including image compress and browse locally for image files.
- Allowing to attach image on a fail code (UUR)
- Print MI sequence with barcodes
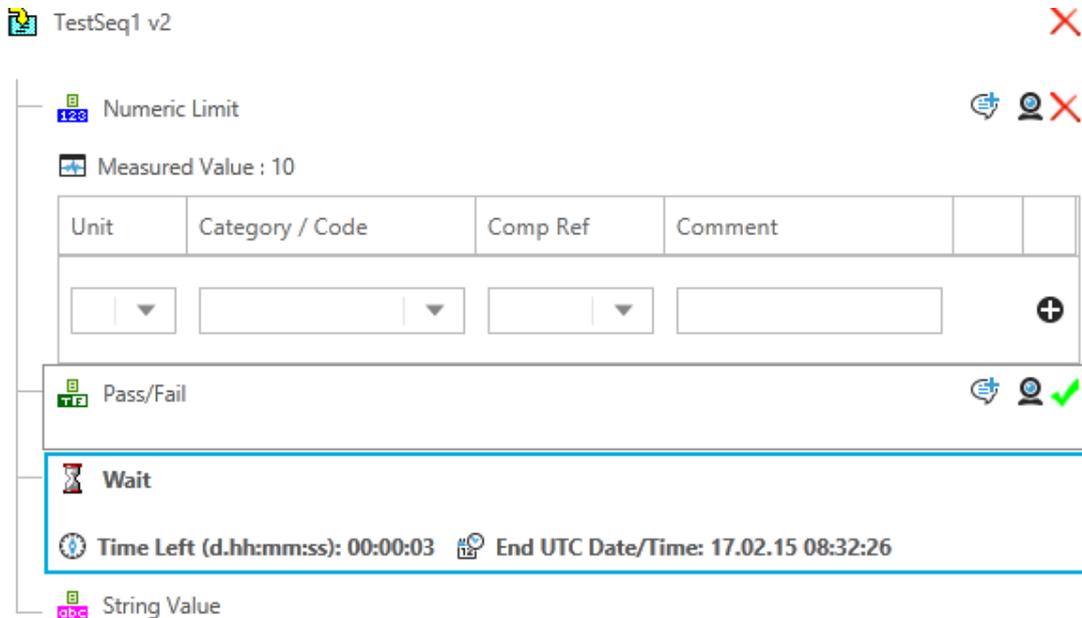
Miscellaneous

- Workflow
  New timing properties in the WIP activity type
  Media/PDF support (WIP Point and User Input activity)

- Product Group, Site, Test/Repair Operation and Status is now multiple option where supported

- Operator Interface now show the available WATS modules in the status bar. Server settings can temporally be overridden in the configure menu