May 2015

WATS Server 2015.2 Release Note

WATS Version 4.2.14

Release WATS Server 4.2.14

This release overview contains information about new features in WATS Server 4.2.14
For more information about WATS, please visit www.virinco.com/wats

Major Feature Areas

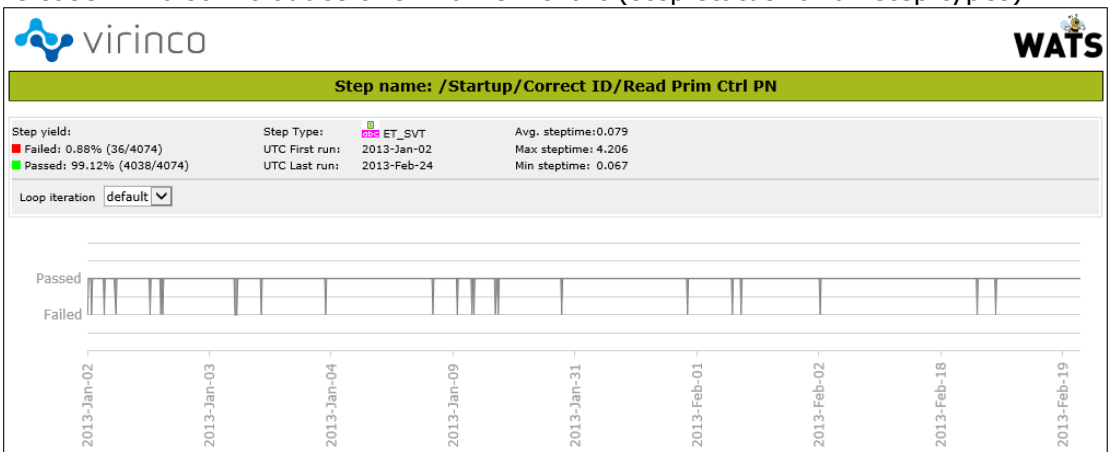
- Test Step Yield & Analysis improvements
- Favorites for Process Capability Analysis and Dashboard
- User defined Numeric Format & Precision for UUT reports
- New report: Roll Throughput Yield
- Rest API
- Software Manager
- Misc

WATS Reporting

Test Step Yield & Analysis improvements

Chart in TSY&A displays Passed/Failed measurement status

String and Boolean step types now display a trend chart of the measurement status over time. Note that this is only measurement status (Passed/Failed) and not step status (Passed/Failed/Done/Terminated/Error/Skipped). Feature WATS release will also introduce this in a new chart (step status for all step types).



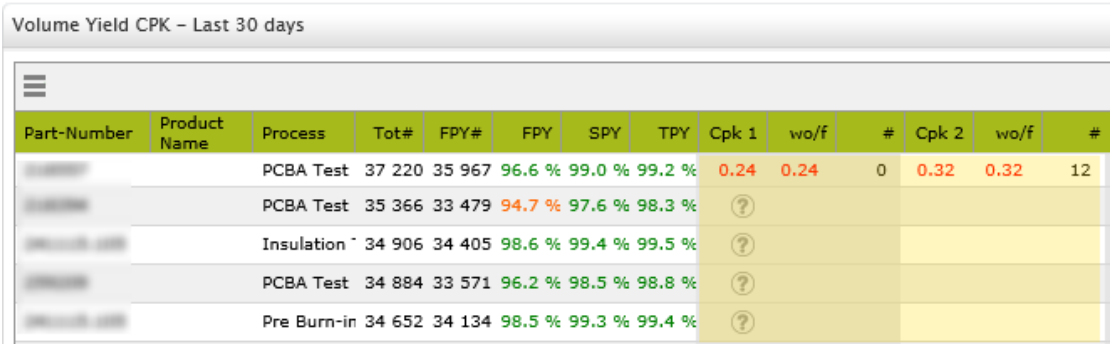
TSY&A top 10 failed steps pareto

The graph will now display steps with status *Failed*, *Error* and *Terminated*. These statuses are also listed in the grid below. The *Other* column is for custom (unknown to WATS) statuses.
The graph will now also show steps with the above-mentioned statuses and exclude passed steps if the total number of failed steps is less than 10.

The *Only count failures cause UUT failure* option is only valid when this flag is set on a step in the UUT report. Typically, NI TestStand will only set this flag when a step has status *Failed* (not *Error* or *Terminated*), and when the *Step Failure Causes Sequence Failure* option is enabled (default).

Favorites for Process Capability Analysis and Dashboard

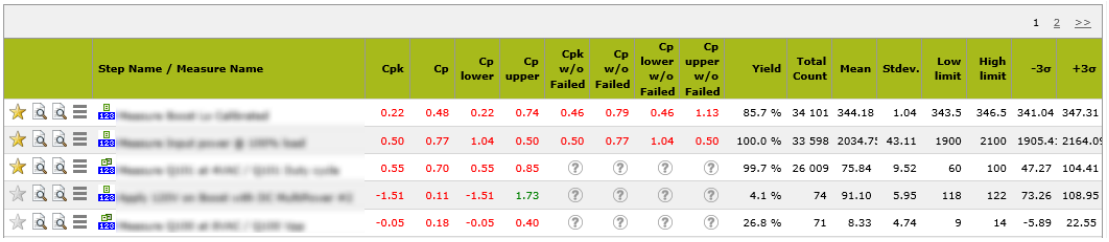
In order to see CPK calculations in the Dashboard view, numeric tests (measurements) must be selected as favorites. From the dashboard view, click on the (?) icon.



Volume Yield CPK – Last 30 days

Part-Number	Product Name	Process	Tot#	FPY#	FPY	SPY	TPY	Cpk 1	wo/f	#	Cpk 2	wo/f	#
[redacted]		PCBA Test	37 220	35 967	96.6 %	99.0 %	99.2 %	0.24	0.24	0	0.32	0.32	12
[redacted]		PCBA Test	35 366	33 479	94.7 %	97.6 %	98.3 %	?					
[redacted]		Insulation	34 906	34 405	98.6 %	99.4 %	99.5 %	?					
[redacted]		PCBA Test	34 884	33 571	96.2 %	98.5 %	98.8 %	?					
[redacted]		Pre Burn-in	34 652	34 134	98.5 %	99.3 %	99.4 %	?					

This will drill down to the *Process Capability Analysis* report with applied filter. In the left column, click on the favorite (star) button to add as favorite.
The steps selected as favorites will be listed in the dashboard view (ordered by CPK value/top 5) and at top of the step list in the *Process Capability Analysis* report.



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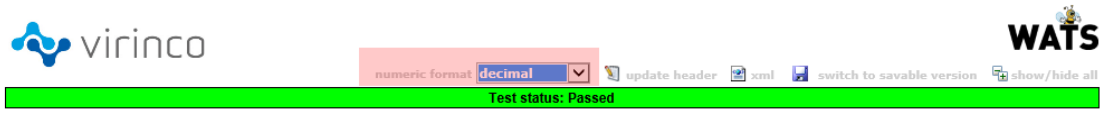
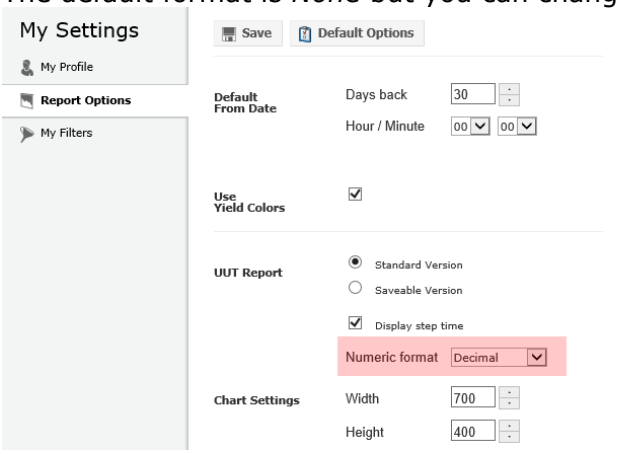
	Step Name / Measure Name	Cpk	Cp	Cp lower	Cp upper	Cpk w/o Failed	Cp w/o Failed	Cp lower w/o Failed	Cp upper w/o Failed	Yield	Total Count	Mean	Stdev.	Low limit	High limit	-3σ	+3σ
★	[redacted]	0.22	0.48	0.22	0.74	0.46	0.79	0.46	1.13	85.7 %	34 101	344.18	1.04	343.5	346.5	341.04	347.31
★	[redacted]	0.50	0.77	1.04	0.50	0.50	0.77	1.04	0.50	100.0 %	33 598	2034.7	43.11	1900	2100	1905.4	2164.0
★	[redacted]	0.55	0.70	0.55	0.85	?	?	?	?	99.7 %	26 009	75.84	9.52	60	100	47.27	104.41
☆	[redacted]	-1.51	0.11	-1.51	1.73	?	?	?	?	4.1 %	74	91.10	5.95	118	122	73.26	108.95
☆	[redacted]	-0.05	0.18	-0.05	0.40	?	?	?	?	26.8 %	71	8.33	4.74	9	14	-5.89	22.55

User defined Numeric Format & Precision for UUT reports

You can now select different numeric formats to display numeric values in the UUT report.



The default format is *None* but you can change the default format in *My Settings*.



None	No formatting applied
Default	Default format with three significant digits
Integer	Displays the integral part of a number
Decimal	Displays a number with three decimal places as precision
Scientific	Displays a number in exponential (scientific) notation with three decimal places as precision
General	General format with eight significant digits
Hexadecimal	Converts a number to a string of hexadecimal digits
Binary	Converts a number to a string of binary digits

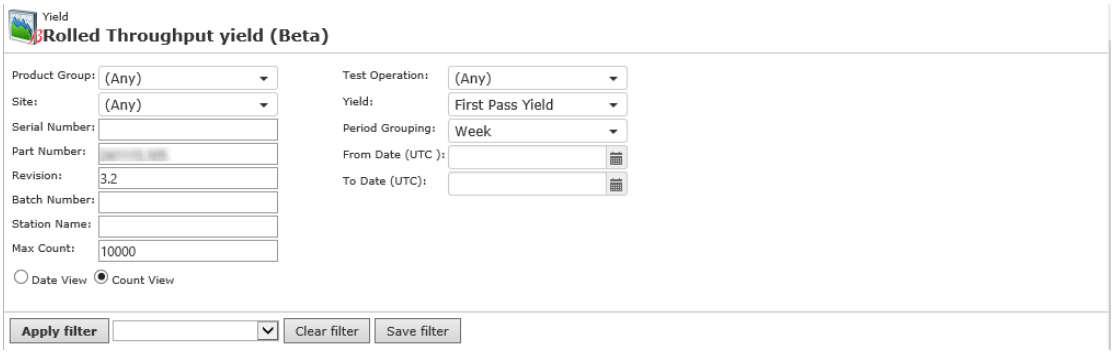
The formatting applies for all numeric values in the report.

New report: Roll Throughput Yield

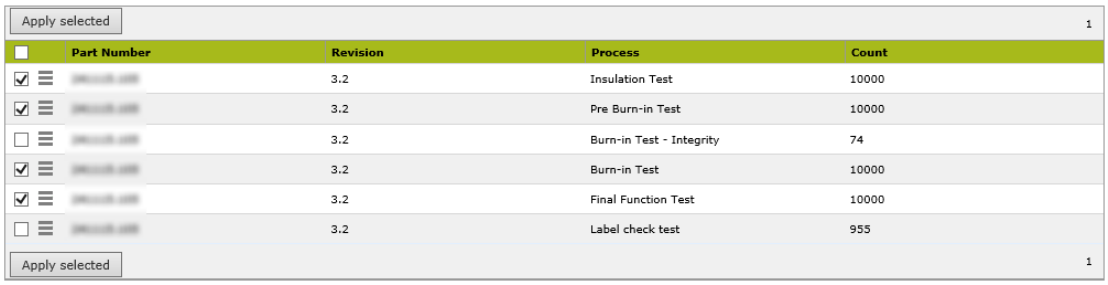
The Rolled Throughput yield (RTY) calculates the RTY for a selected set of part numbers and processes. RTY is calculated by multiplying the yield for each part number / process and period. Initially you will need to select either "Date View" or "Count View" and apply a filter.

NOTE: "Max Count" (filter value) is only valid for the Count View

Date View: This view will include data from within the chosen date interval in the filter.
Count View: This view will include only the last "Max Count" (filter value) units of each Part Number / Process combination no matter when they were tested as example below.
Step 1; enter filter details (it is recommended to use many parameters in the filter to narrow and speed up the search). You can also use a list of Part Numbers to look at RTY from e.g. a module (separate with ";").

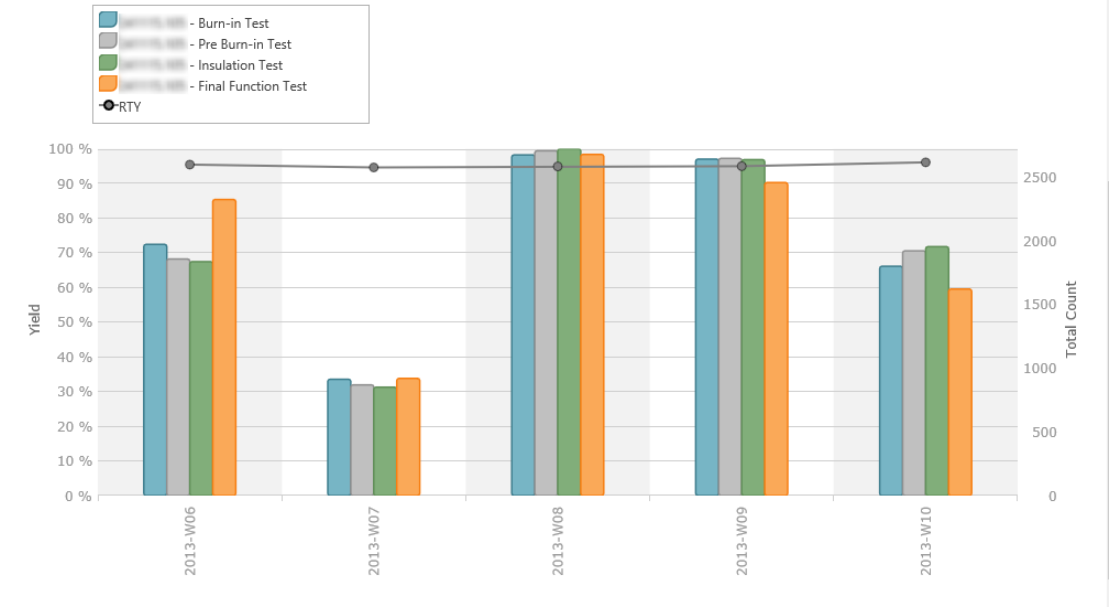


Step 2; Select the Part Numbers and processes where you want to calculate the RTY and apply selected.



Step 3; the grid will show RTY for each period (depending on the selected period in the filter) and the total RTY in the first column. The RTY for each period is also displayed in a graph.

Part Number	Process	Total Yield	Total #	2013-W06 Yield	2013-W06 Total #	2013-W07 Yield	2013-W07 Total #	2013-W08 Yield	2013-W08 Total #
[redacted]	Burn-in Test	99.37 %	10 000	99.80 %	1 972	98.69 %	913	99.55 %	2 674
[redacted]	Pre Burn-in Test	98.20 %	10 000	98.92 %	1 857	98.04 %	869	98.23 %	2 706
[redacted]	Insulation Test	98.48 %	10 000	97.28 %	1 836	98.94 %	851	98.09 %	2 722
[redacted]	Final Function Test	99.08 %	10 000	99.35 %	2 324	98.80 %	920	98.92 %	2 678
	RTY	95.21 %		95.41 %		94.59 %		94.88 %	



Rest API

The WATS Rest API can be used to retrieve collected information from the WATS database using standard web Api methods. This first version of our public web Api, you can query for WATS Reports (UUT and UUR) using an Web Api controller, and request the entire report in one of two xml formats, WSXF and WRML format. The api results is returned in Json format unless explicitly requested as xml.

For details and documentation, please visit:
http://support.virinco.com/forums/21198289-WATS-Rest-API

Miscellaneous

- Unit history (MES) changes
  - Export grid to Excel has been added
  - 2 new columns; UTC Changed (Last change performed on the unit) and Changed (Local server time)

- Repair analysis
  - Fitted graphs to available width in the browser
  - Added export of data grids to excel

- Product Manager (MES)
  - The Box Build relation (BOM) now support more than one revision of a sub unit (revision wildcard)

- Added tooltip info for product groups in WATS report filters displaying the content of the groups

- Added export of Misc info header fields in UUR Report Export to Excel