



December 2016

WATS Server 2016.3 Release Note



# WATS Server 2016.3 Release

This release overview contains information about new features in WATS Server 2016.3 For more information about WATS, please visit <u>www.virinco.com/wats</u>

# **Major Feature Areas**

- Yield report
- Test Step yield & analysis
  - New Details View (preview)
  - Chart Overlay general available
- New Manager in Control Panel merging Manual Inspection and Workflow Manager (HTML5)
  - Dashboard improvements
    - New widget: Step status list (Test Step yield & analysis)
    - Action menu on all dashboard widget
- Miscellaneous
  - Select Reporting Start Page
  - Manual Inspection: Added Attach File step type and support for adding UUT sub unit information
  - Production Manager (MAC address module): Support for non-MAC serial numbers
  - o Performance enhancements and bug fixes





# **Yield report**

The report is a new high level Yield overview based on the advanced WATS data warehousing for high speed reporting. With its well-known WATS filter, the report allows you to see data from millions of unit's years back in time. The aggregation is based on Part Number and Process. Returned data is Total count, FPY count, FPY, SPY and TPY.

e is Logged in as admin 🛛 Exit 🕞 i	Log Out 🛛 🐉 My Settings						Resource Center (?) Help
Test & Repair UUT report	Yield report						
Senal Number history UUR report Repair analysis	Product Group: (Ar	vy) v Test Operation: (Any)	•				
Repair Time Export Wizard	Part Numberi	To Date (UTC): 2016-Dec-31 23:59	÷				
Yield	Batch Number:						
Product & Test yield	Station Name:						
Product yield	Min Count (units): 600	20					
Total Process yield							
Process Capability analysis	Apply filter	Clear filter     Save filter					
Station Station report							1
OEE analysis GR&R analysis	Part Number	Process	Total Count	FPY Count	FPY	SPY	TPY
Connection & Execution time	= ***********	Functional test	2 125 861	2 044 467	96-2 %	98-2 %	98.6 %
Email Vield Monitor	= ********	Functional test	619 819	593 515	95.8 %	97.9 %	90.5 %
Summary Report	E statement	Functional test	505 057	552 069	94.2 %	96.3 %	96.7 %
	<ul> <li>mathematic</li> </ul>	Functional test	353 180	329 999	93.4 %	97.5 %	98.1 %
	E 8000-088	Functional test	338 703	322 505	95.2 %	97.0 %	90.4 %
	E 1004-003	Functional test	304 977	288 962	94.7 %	97.1 %	97.5 %
	E 100.000	Functional test	181 576	172 646	95.1 %	97.7 %	98.3 %
	E manufacture	Functional test	91 970	86 532	94.1 %	96.3 %	96.7 %
	=	Functional test	88 080	82 720	93.9 %	97.3 %	97.9 %
	E 8044484	Functional test	77 475	71 461	92.2 %	96.1 %	96.9 %
	= *********	Functional test	76 640	71 949	93.9 %	97.6 %	90.2 %
	= antitic feat	Functional test	76 348	67 389	88.3 %	94.1 %	95.5 %
	E 10.00 to 10.00	Functional test	74 996	69 029	93.1 %	96.6 %	97.5 %
	E statut mains	Functional test	66 170	61 910	93.6 %	96.9 %	97.8 %
@ Reporting	E 1004-041	Functional test	64 827	60 005	92.6 %	96.9 %	97.7 %
a Dashboard	E 10.000 (0.000)	Functional test	60 771	54 647	09.9 %	96.2 %	97.3 %
Root Cause							1

From the Yield report, drill into the *Process Capability analysis* report for big data analysis, or the well-known Product & Test yield report to add test SW details. See also <u>Big Data Analysis</u>





# Test Step yield & analysis

This version of WATS includes a complete rewrite of the Step details reporting, greatly improving its feature set.

### New Details View (preview)

6 selected measurements + PAnalyze selected				Q Analyze mode: 3 steps			
MainSequence Callback 1354:1250 103 1	Measurement view:	Measurement sort order:					
Check Fixture 1254	Multiple y avis	Execution order					
Capacitor test 1254: 1228 16	Construction of States						
m Apply Discharge C21 (220µF)	Charge rate C31 (220µ	F) 🔊 — ILON_ReadBack Ci and Cv 🖻		e			
Wait 1sec 1254	Show/hide all series	Q, Zoom out					
Discharge test C31 1354							
i fisable Discharge C31 (220µF) 1354	Passed						
Charge rate C31 (220µF) 1354:1341 13							
Apply Discharge C41 (4700µF) 1354	Step headers						
Wait 1sec 1354							
Discharge test C41 1354	Grouping:	X-axis:		Number of measurements	Failed measurements	Export	
Disable Discharge C41 (4700µ7) 1354	a la construcción de la construc	- (the		2500		100 Count	
🗔 💑 Charge rate C41 (4700µ8) 1354:1350 4	None	CHU		2000	Hide Show	THE EVICE	
▶	Advanced options						
Apply High Voltage Power 1228	-Charge rate C11 (220uP)	M	M	dCurrent 🕅			
Coupler Test 1238:1220 8	and a second sec						
Remove High Voltage Power 1338	Show/hide all series	C Reset Q Zoom out X-axis 2	om and pan 🕷 Y-axis zoom a	nd pan 🕷 Navigation 🚱			
▶ 🗔 🎦 Ctl-Board 1330	11.09 2.05	2.05	T		T	1	
Apply Cti-board Power 1330	243.49 244	37.6					
Wait 100ms 1330	9.89						
UUT Power-Up 1330	1.55 193.49 194.4	1.55					
Apply UUT 5 + 12V 1330		32.0					
Turn Chroma Power ON 1330	7.89	A	and a second second			and the second s	-
Wait 1sec 1330	143.49 144.4	27.5 A 12 10 A 19 A	Internal Design and the second s	INCOME AND A PROPERTY AND A DESCRIPTION OF	and the local state of the state of the state of the state of the	The second s	
Apply High Voltage Power 1330	5.89 1.05	1.05	Contract of Contract of Contract	A CONTRACTOR OF THE OWNER.	and the second second second second		
▶		22.5					
E th Apply AC Load 1220	3.89 93.49 94.4						
🔲 🧕 Wait 100ms 1220		17.5					
Measure AC Voltage 1330: 1328 2	43.49 44.4	0.05					
E Remove AC Load 1330	1.09	12.5					
📖 🚠 Measure Isolated 8V 1330:1327 3							
Measure Isolated 5V 1330:1327 3	-0.11 0.05 -6.51 -6.5	0.05 7.6					• •
m Apply 1-10V continuity 1330							
Measure 1-10V continuity 1330 1324 6							*
The second state of the state o	Very Conservations		100	TS I Coovriette © 2017 Vininco AS I All riet	to received	14/44	FC_
i ne new step details view							

The new step details view has a wide range of improvements over the old report:

• Different view modes make it easier to determine where, when and why problems occur.









Grouped line view: View data grouped by a number of factors, like part number, operator or station

- View a single step, or select several steps together, to determine correlation.
- Select the steps to view in a list on the left-hand side of the report. No need to return to Test step & yield analysis page to select other steps. Easily select the top 10 failed steps.
- View numeric data in several different view modes:









List measurement: Or simply view a list of all analysed steps.

• Configure several aspects of the step details view through a settings menu. Settings are stored on a per user basis.



• Improved chart navigation. Freeze axis when zooming and panning, show/hide series and more.



#### **WATS Server Release Note**





See also this introduction video: https://www.youtube.com/watch?v=yGsM2a4nw5E&t=256s

#### Chart Overlay general available

The chart overlay is now general available.

The chart overlay is a hidden gem, accessible from the Test Step yield and analysis' details page. The chart will plot "Chart Step (TS: XY Graph Multiple Numeric Limit Test)" results from multiple reports/units in a single graph. You will therefore easily identify problem-units and trends.

To improve chart performance, we have added an option to force "line chart" mode (Y values added consecutively on the X axis). "XY chart" mode is also available, if your data requires both the X and Y value to display correctly.

Maximum, minimum, average and +/- 3 stdev are also calculated and plotted in the chart.

The chart is by default zoom able on both axes. Now, you also have the option to turn zooming on/off per axis.







## New Manager in Control Panel

The Workflow Manager and Manual Inspection Manager have now been merged into one Manager, and been converted from Silverlight to HTML5.

Amongst new features, filtering options has been added to make it more efficient to find specific workflows or test sequences.

- Filter on definition type: Manual Inspection or Workflow
- Filter on deployment status (e.g. "Released")
- Filter on search criteria: Searches for matching definition name/description, relation value, site name or created/released by user name.







### **Dashboard improvements**

The dashboard module has some minor improvements, in form of a new widget (step status list) and drilldown functionality.

### New widget: Step status list

The Step status list is a new widget in the dashboard module, and will by default list the 10 most failed test steps per part number and process.

The widget will list step path, total count, status count and status rate % (status count / total count) that matches your filter.

If you want to include error and terminated in the status count, simply select them in the status dropdown in the widget's filter. You may also choose to only include failures that caused the UUT to fail.





Mark widgets to add	Step Status					
Charts						
E Test Volume						1
🗄 🔲 Repair Volume		Part	Process	Total	Status	Status
Vield	5	Number		Count	Counc	7
Product Yield	Startup	241123.	Pre Burn	194	38	19.6 %
Failure Type	Startup/Poweron/Check U	J 241123.	Pre Burn	196	15	7.7 %
Total Process Yield	Measurements/241123.10	c 241123.	Burn-in	138	8	5.8 %
Process Overview (MES)	Startup/Poweron/Measure	, 241123.	Pre Burn	173	6	3.5 %
Phase Overview (MES)	Startup/Poweron/Apply 8	241123.	Pre Burn	179	6	3.4 %
nit Throughput (MES)	Big Startup/Correct ID / SubC	a 241123.	Pre Burn	167	5	3.0 %
	Calibration/AC Output/Out	- , 241123.	Pre Burn	123	2	1.6 %
Test Statistics		- 241123	Pre Burn	120	1	0.8%
Volume Yield CDK	Dia ana ana ana ana ana ana ana ana ana a	041100	Dre Dum	100	-	0.0 %
Werst Vield	Calibration	241123.	Pre Burn	123	1	0.8 %
						1
Step Status						
op Repair						

#### Action menu on all dashboard widget

All dashboard components have now a drill-down option using the WATS Action menu. Right click on a widget and select one of the WATS reports. A new tab will open with prefilled filter based on the widget filter in the Dashboard.

Part-Number	Product Name	Process	т	ot#	FPY#	FPY	SPY	
OLC-140-P	ProdName	PCBA test	2 :	580	2 238	86.7 %	94.3 %	-
OLC-140-C	UUT report			77	2 174	84.4 %	96.4 %	1
OLC-130-P	Serial Number history			52	2 070	84.4 %	95.5 %	
OLC-130-C	UUR report			98	1 715	81.7 %	95.7 %	-
100309	Repair analysis Repair Time			10	1 264	96.5 %	98.5 %	1
	Export Wizar	ď						
	Test Step yield & analysis							_
	Product & Te	st yield						
Product yield								
	Product by R	evision yield						
	Total Process yield							
	Rolled Throu	ahput vield						





### Miscellaneous

### Select Reporting Start Page

Users are now able to set their preferred start page in Reporting, based on available report pages the user has permissions to view. If a start page has not been defined, the selection pop-up is shown after navigation to Reporting. If a start page has been chosen, the defined page will be opened as default.

Please select your start page		×
UUT report		T
	Apply	Cancel

The user may also change the preferred start page in "My Settings" and in section My Profile / Start page.

Start page	UUT report	•
Default start page (Reporting)		

### Manual Inspection

Added Attach File step type and support for adding UUT sub unit information

🔥 Log	iged in as admin	12 🗍 Exit 🖡	Log Out 🛛 🌛 My Settir	ngs					
🏶 Configuration 🛛 🕎 Barcode Commands									
Serial I	Number	56146498	Part Number	100200	Revision	Batch Number			
>	🐢 υυτ/υυ	R Miscellaneous li	nfo				>		
Ň	🗃 UUT Sub	) Unit Info					~		
/	Serial Numb	er	Part Number		Revision	Product Name			
			100300	I	А	demo	×		
ø									
~									
8	Add Unit								
				c	lose				
	🔯 Test Ope	eration: SW Debug	J				~		
	🖕 隆 Simp	oleTest νδ					<u> </u>		
	demo sec	1							

www.virinco.com/wats



### Production Manager (MAC address module)

The Production Manager now support any serial number generation, in addition to MAC addresses. Contact Virinco for more details.

### Performance enhancements and bug fixes

See list.

© 2016 Virinco AS. All rights reserved.

