



May 2016

WATS Server 2016.2 Release Note

WATS Server 2016.2 Release

This release overview contains information about new features in WATS Server 2016.2

For more information about WATS, please visit www.virinco.com/wats

Major Feature Areas

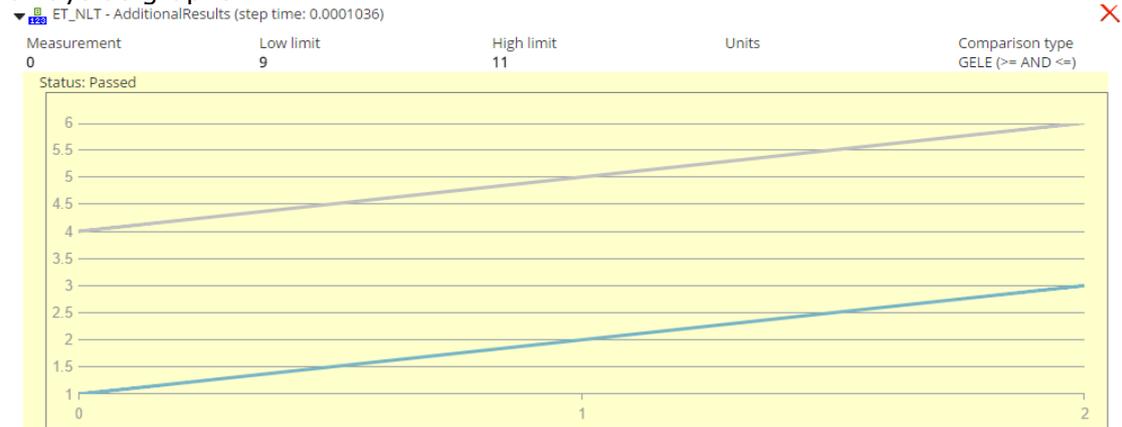
- New UUT Report
 - Supporting TestStand Additional Results
- Miscellaneous data as dimensions
- WATS Control Panel in HTML
- System Manger
 - Virtual Levels/Restrict access to Users
- Serial/MAC Address Module
- Repair
 - BOM integration (and Vendor list)
 - Attach file to UUR report
 - Repair analysis
- Miscellaneous
 - New login
 - Remember settings
 - WF, See all details list
 - MI, Require UUR tristate
 - Export to Excel Grid/unit details from Repair Analysis

New UUT report

This version of WATS includes a complete rewrite of the UUT report. The report will still feature the same well-known structure as the old report, but will include the following new features:

Additional Results

The report now support Additional Results from NI TestStand for any steps containing such data. This includes display of one and two-dimensional numeric arrays as graphs.



Touch Friendly Design

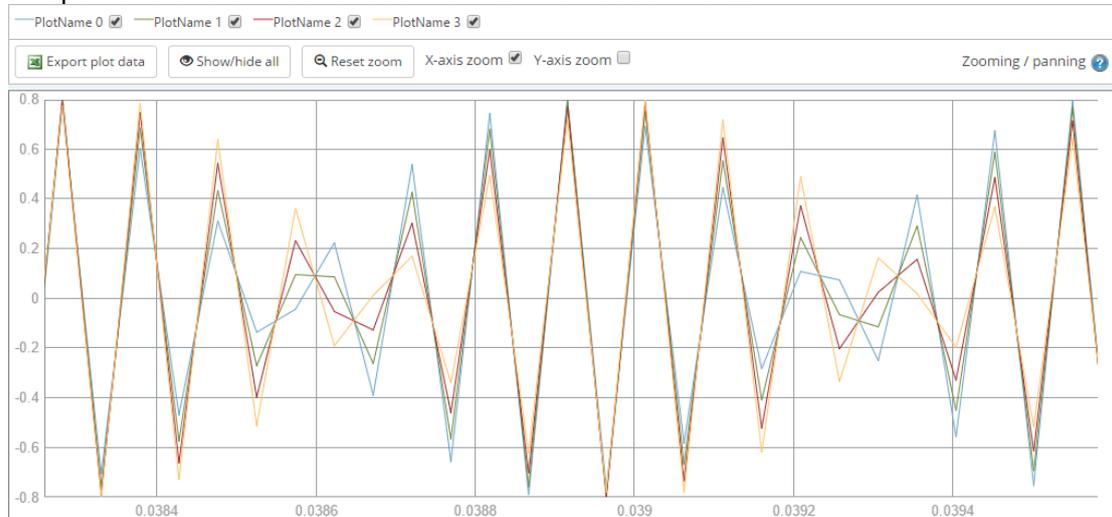
The new UUT report provides a new and responsive design, which better enables viewing and navigation of the report, especially on tablet and mobile devices.

Improved Loading

The new UUT report handles loading of data in a new way, decreasing the server load, and providing a more dynamic loading process. Data will be loaded and rendered as needed. Users should especially see an increase in performance for larger reports, especially those containing many graphs.

Redesigned Chart

The chart for XY Graph steps now includes zooming and panning. No more need to open the chart in advanced view to view data in detail.



Report Summary

A summary will now show the number of steps which qualifies as a given status (passed, failed etc.).

Step status: ✔ Passed: 42 ✘ Failed: 40 ✔ Done: 35 ✔ Skipped: 52

Goto step which caused UUT Failed.

Software File Name:
C:\TF5Online\WATS\Main\Teststand\Test and Demo\FAT-SAT\TS2014\SeqFiles\TS2014 - FATv1.seq
Version: 1.1.0.44

UUT Failed

The report will now display the step, which caused the UUT report to fail. This step is marked with a red header (Error and Terminated status from TestStand will not set this flag).

String Value Test (step time: 0.0002017) - Caused UUT Failed -		
String value this is a string result	String limit this is a string limit	Comparison type Ignore Case

Step drilldown

It is now possible to assign a step in which the report should scroll to in its URL path. This step is marked with an orange header.

Linking to Serial Number History

Sub units listed in the report header will now link to the serial number history of the unit.

Toggle Done and Skipped steps

It is now possible to toggle all steps which has the status of done and skipped.

Update Settings in the report

Choices for chart size, numeric format and whether step time and Done/Skipped steps are displayed will automatically be remembered on a per user basis.

▼ Show/hide all ☰

- Edit header
- Table view
- Export WSXF
- Chart height: px
- Hide Done and Skipped steps
- Hide step time
- Help

Export to WSFX

The new report offers export to the WATS Standard XML Format (WSXF): <https://virinco.zendesk.com/hc/en-us/articles/207424643-Wats-Standard-Xml-Format-WSXF->

Keyboard Hotkeys

When viewing the report on a device with a keyboard, several actions can now be performed using predefined hotkeys. This provides a more efficient way to use and navigate the report.

The following list describes the hotkeys included in version 2016.2:

ACTIONS	
Expand all steps (show all).	Shift + a + s
Contract all steps (hide all).	Shift + a + h
Toggle (show or hide) done and skipped steps.	Shift + a + d
Open table view (previously saveable version).	Shift + a + t
Activate edit header mode.	Shift + a + e
FORMATS	
Display value only (the "none" format).	Shift + f + n
Format numeric values as binary.	Shift + f + b
Format numeric values as decimal	Shift + f + d
Format numeric values as hexadecimal.	Shift + f + h
Format numeric values as integer	Shift + f + i
Format numeric values on scientific (exponential) format.	Shift + f + s
SCROLL	
Scroll to the step causing UUT failure.	Shift + s + f
Scroll to the report header	Shift + s + h
Scroll to drill down step (if applicable)	Shift + s + d
MOUSE CLICKS	
Show / hide all for a single step / group	Ctrl + mouse click

Miscellaneous data as dimensions

Miscellaneous data can now be used as dimensions to calculate Yield and Volume. These options are available in the *Rolled Throughput yield* and *Product Yield* reports.

Miscellaneous data are now spilt into 2 search boxes (in these reports), *Misc Info Desc (Description)* and *Misc Info String (Value)*. *Misc Info Desc* value must be matching text while *Misc Info String* support wildcard search as example below. The value of description is new header text in level 2 and the expandable list in

level 3 display all the misc string values found in the matching reports as expandable groups.

 **Product yield**

Product Group: (Any) ▾	Test Operation: Burn-in Test ▾
Level: (Any) ▾	Yield: First Pass Yield ▾
Part Number: 241118000	Repaired Units: All ▾
Revision:	Misc Info Desc: Position in rack
Batch Number:	Misc Info Value: 66%
Station Name:	Period Grouping: Month
	From Date (UTC): 2013-Jan-01 00:00
	To Date (UTC):

Apply filter ▾ Clear filter Save filter

Period	Total Count	Pass Count	Yield	Warning	Alarm	PPM
2013, October	46	44	95.7 %	95.0 %	90.0 %	43 478
2013, September	91	91	100.0 %	95.0 %	90.0 %	0
2013, August	165	163	98.8 %	95.0 %	90.0 %	12 121
Position in rack						
66.1.1	6	6	100.0 %	95.0 %	90.0 %	0
Part Number						
241118000	6	6	100.0 %	95.0 %	90.0 %	0
66.1.2	7	7	100.0 %	95.0 %	90.0 %	0
66.1.3	6	6	100.0 %	95.0 %	90.0 %	0
66.1.4	7	7	100.0 %	95.0 %	90.0 %	0
66.2.1	2	2	100.0 %	95.0 %	90.0 %	0

WATS Control Panel in HTML

The release introduce a new version of the Control Panel (CP) written in a plug-in free HTML environment partly replacing the previous version based on MS Silverlight. Using the CP will allow seamlessly moving between the old and the new version based on requested features.

Configure/Settings

All the common menus in this section is now updated using HTML

Account

A new account page has been added allowing the skyWATS.com account owner to administrate Users and restricted access and edit User Levels and WATS Clients.

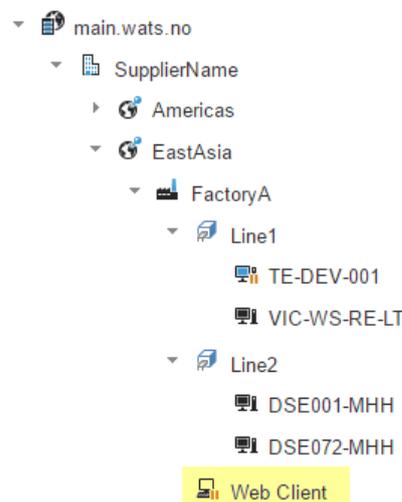
<https://virinco.zendesk.com/hc/en-us/articles/210652223-Account>

System Manager

The new WATS System Manager provides detailed information about the WATS infrastructure. All WATS Servers and WATS Clients are displayed hierarchically in a tree-view.

This release introduce *Web Clients* and *Virtual Levels*. Every WATS installation has one Web Client and all users are linked to it by default. You can make new Virtual Levels and Web Clients building an advanced system overview:

Type	Virtual	Description
WATS Server:	NO	A Local Server connected to the Master Server installed with its own web portal and local database. (Not applicable for skyWATS.com)
WATS Client:	NO	A computer running the WATS Client software. The WATS Client communicates with a WATS Server and will by default show up underneath this server in the hierarchy. A Client may be dragged into a virtual level to form a custom hierarchy.
Web Client:	YES	All users defined in the Users/Account view must be member of a Web Client. This means, that reports created by this User in the Operator Interface (Repair (UUR), Manual Inspection (MI Report)) will be linked to this Web Client. A Web Client may be dragged into a virtual level to form a custom hierarchy.
Virtual Level:	YES	A custom named level in the hierarchy. You may drag WATS Clients, Web Clients, Servers or even other Virtual Levels into a virtual level to create a custom hierarchy. Virtual levels will be available in the Level drop down in the Report Filter and as an item in the restrict to level column in the Users/Account view.



From the ribbon menu, use *New Virtual Level* and *New Web Client* to add items. Drag and drop the items to build your hierarchy (check the *Edit tree view* box first).

Restrict access

Navigate to Users (on premis) or Account (skyWATS.com) menu page to link Users to a Web Client and restrict access to a Virtual Level. The user will only

have access to UUT and UUR reports logged form Clients, Servers or Levels below the selected restricted level.

User list						
Username	Display name	E-mail	User level	Web Client	Restrict to Level	Restrict to Prod...
te@virinco.com	Tommy 1	te@virinco.com	Developer	Web Client		Group 1
te@virinco.com	Tommy 2	te@virinco.com	Developer	Web Client	YTECH Line 2	
Operator	Operator	te@virinco.com	Operator	Web Client		
gdanielson	Gunnar Danielson	gunnar.danielson@...	Manager	EricaCR		

Miscellaneous

- New *Comment* pane allowing you to add comments to a Client or Server in the hierarchy
- Inactive Clients are now set after 24 hours (previously 1 hour)
- Export the System Manager items to an Excel file

MAC Address Module

A new *Production Manager* main menu has been added to the Control Panel. Navigate to the *Production Manager* sub-menu to access the dashboard. Use the dashboard to upload or create a range of addresses and see address pool status. Use the WATS Client API to read and download addresses locally at the test station.

Generated		Free		Reserved		Taken	
203,266		200,493		434		2,339	

Start Address	End Address	Generated	Free	Reserved	Taken
11-11-11-11-11-00	11-11-11-11-11-FF	256	249	7	0
AA-AA-AA-AA-00-00	AA-AA-AA-AA-10-00	4,097	4,097	0	0
BB-BB-BB-BB-00-00	BB-BB-BB-BB-FF-FF	65,536	65,536	0	0
FF-FF-FF-FF-00-00	FF-FF-FF-FF-05-FF	1,536	1,536	0	0
DD-DD-DD-DD-00-00	DD-DD-DD-DD-02-00	513	2	0	511
22-22-22-22-00-00	22-22-22-23-FF-FF	131,072	129,072	425	1,575
DD-DD-DD-DD-DD-00	DD-DD-DD-DD-DD-FF	256	1	2	253

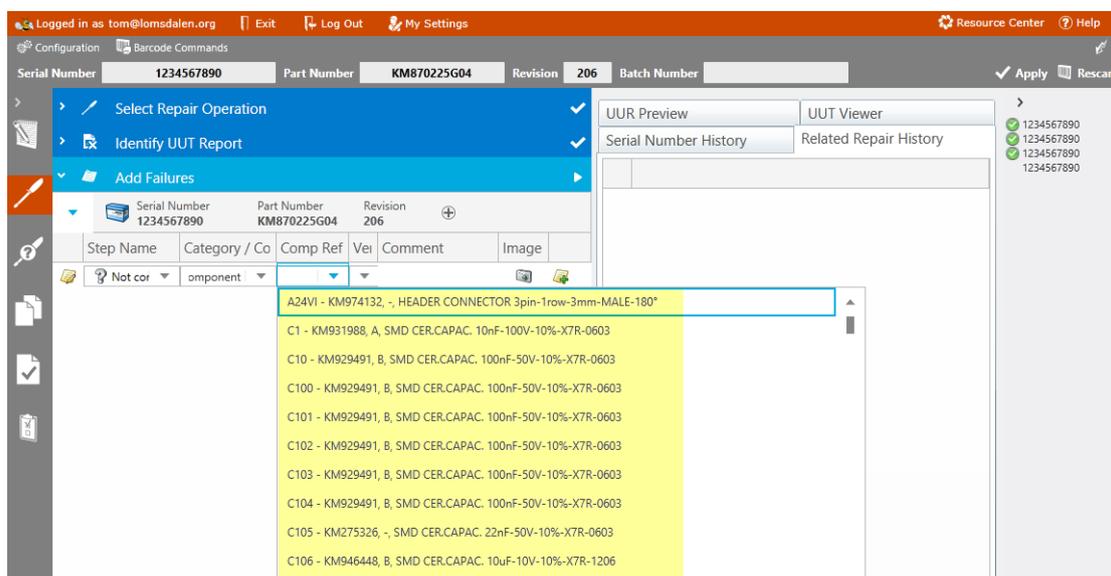
NOTE: This feature require additional license. Please contact sales@virinco.com.

Repair

BOM integration

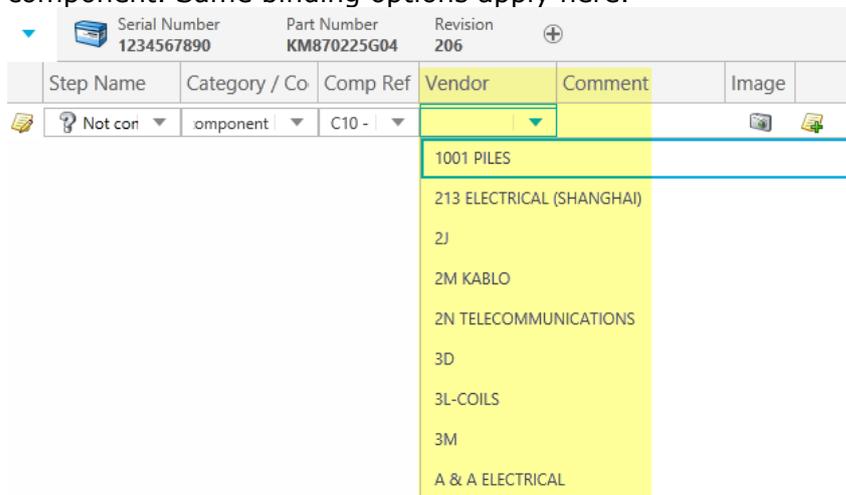
WATS can now import BOM list from other ERP/PDM systems and make use of this in the Repair Report GUI. When operator select a component reference during repair, a drop down list of valid references linked to that Part Number and Revision will appear. Configuring the *Processes>Is Repair* Operation allow to select BOM Binding

- Required: User must select from list
- Optional: User can select from list or type the value
- Never: User type the value



Vendor list

A vendor list is also available allowing the operator to select correct vendor of the component. Same binding options apply here.



In addition to increase data input quality, the UUR report also log component Article Number, Article Revision (if available in the BOM list) and Vendor Name.

[Update Report \(UUR\)](#) [Show Images](#)

Repair Report

Serial Number: XXXXXXXXXXXX

Part Number: XXXXXXXXXXXX

Revision: XXX

Operator: XXXXXX

Start Date/Time: 2016-Apr-12 13:54:07

UTC Start Date/Time: 2016-Apr-12 11:54:07

UTC Finalized Date/Time: 2016-Apr-12 11:54:32

Repair Execution Time: 23.7 seconds

Repair Operation: RMA - Visual inspection

Test Operation: RMA - Visual inspection

Station Data:

Misc Info:

Article Number	Article Revision	Comp Ref	Article Vendor	Category	Code	Step Name	Comment	Image
XXXXXXXXXX	A	C1	1001 PILES	Visual Inspection	Code1	N/A	test	

A new *Article Number Report* option in Repair Analysis has been added to allow reporting on components used for different Part Numbers with different references.

Test & Repair

Repair Analysis

Product Group:

Level:

Serial Number:

Part Number:

Revision:

Article Number:

Batch Number:

Station Name:

Test Operation:

Repair Operation:

Run:

Misc Info Desc:

Misc Info String:

From Date (UTC):

To Date (UTC):

Part Number Report
 Failure Type Report
 Article Number Report
 Component References Report
 Failed Step Report
 Testoperator Report
 Teststation Report

Apply filter

▼

Clear filter

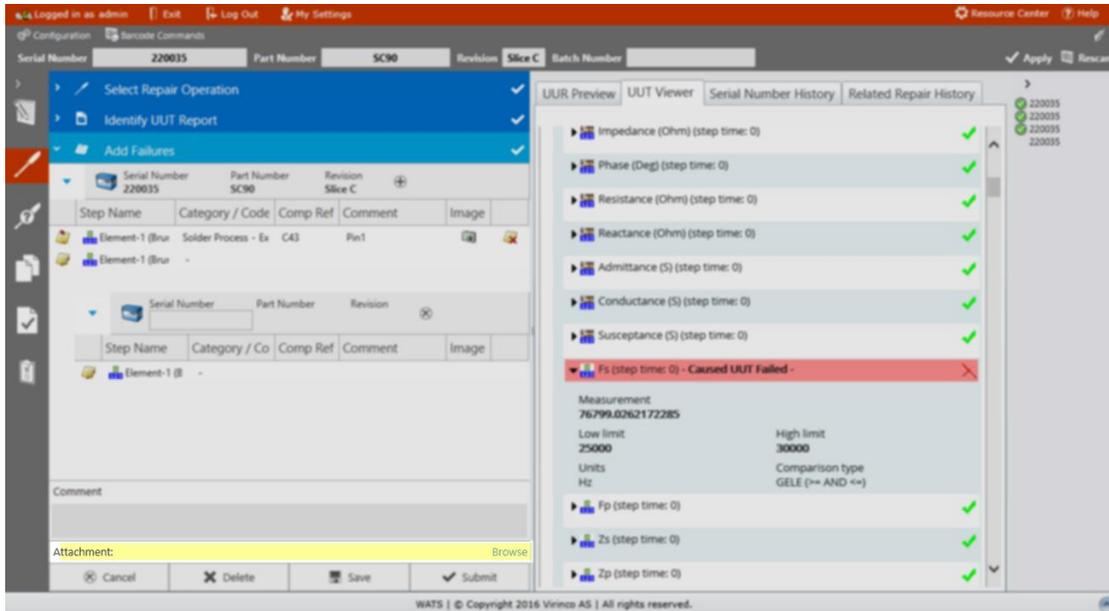
Save filter

Article Number Report								1
Article Number	Part Number							Count
KM931988	KM51004000V001							2
CompRef	Article Revision	Article Vendor	Type	Repair Operation	Repair Category	Repair Code	Count	
C1	A	ZJ	Unit	RMA - Visual inspection	Code1	Visual Inspection	1	
C1	A	2M KABLO	Unit	RMA - Screening Read	Code1	ScreeningReady	1	
KM931988	KM936078G04							1
CompRef	Article Revision	Article Vendor	Type	Repair Operation	Repair Category	Repair Code	Count	
C1	A	1001 PILES	Unit	RMA - Visual inspection	Code1	Visual Inspection	1	

NOTE: BOM and Vendor list are currently not available for skyWATS.com

Attach file to UUR

You can now attach a file to the UUR report header during repair.



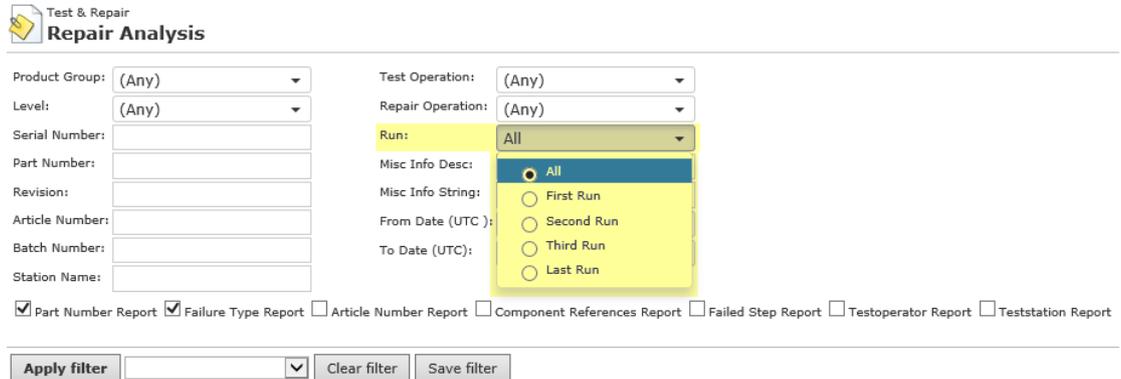
From the UUR report, a new "Attachment" item will display a link to the file for download.



Repair analysis

New filter options:

- **Run:** Allow you to filter analysis based on all UUR reports, only First UUR (per Unit), second UUR, etc. similar to Run for UUT reports. Using e.g. Last Run will provide "better guess" of what repair information was true root cause of the failure.



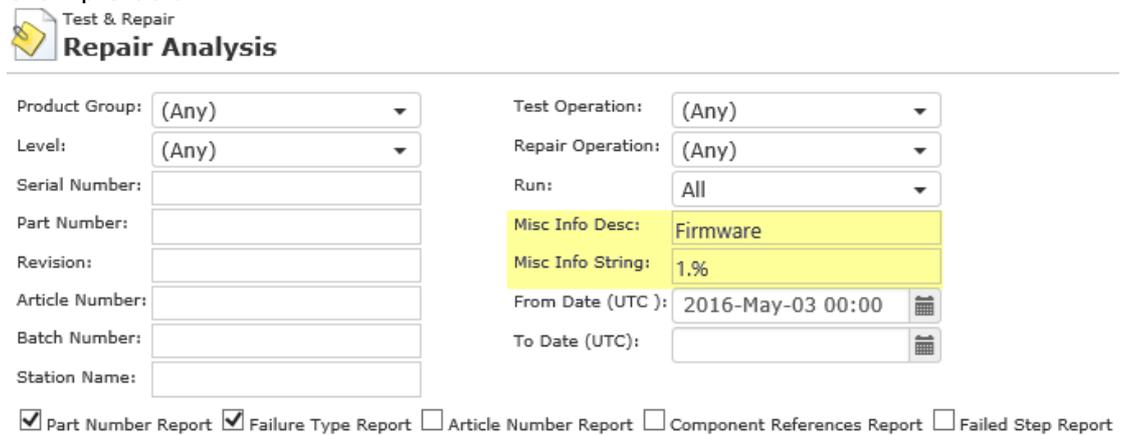
Test & Repair
Repair Analysis

Product Group: (Any) Test Operation: (Any)
 Level: (Any) Repair Operation: (Any)
 Serial Number: Run: All
 Part Number: Misc Info Desc: All
 Revision: Misc Info String: First Run
 Article Number: From Date (UTC): Second Run
 Batch Number: To Date (UTC): Third Run
 Station Name: Last Run

Part Number Report Failure Type Report Article Number Report Component References Report Failed Step Report Testoperator Report Teststation Report

Apply filter Clear filter Save filter

- **Miscellaneous data:** Miscellaneous data are split into two search boxes *Misc Info Desc (Description)* and *Misc Info String*. *Misc Info Desc* value must be matching text while *Misc Info String* support wildcard search as example below



Test & Repair
Repair Analysis

Product Group: (Any) Test Operation: (Any)
 Level: (Any) Repair Operation: (Any)
 Serial Number: Run: All
 Part Number: Misc Info Desc: Firmware
 Revision: Misc Info String: 1.%
 Article Number: From Date (UTC): 2016-May-03 00:00
 Batch Number: To Date (UTC):
 Station Name:

Part Number Report Failure Type Report Article Number Report Component References Report Failed Step Report

Cake diagrams

Cake diagrams has been added to all sub reports in addition to Pareto charts.

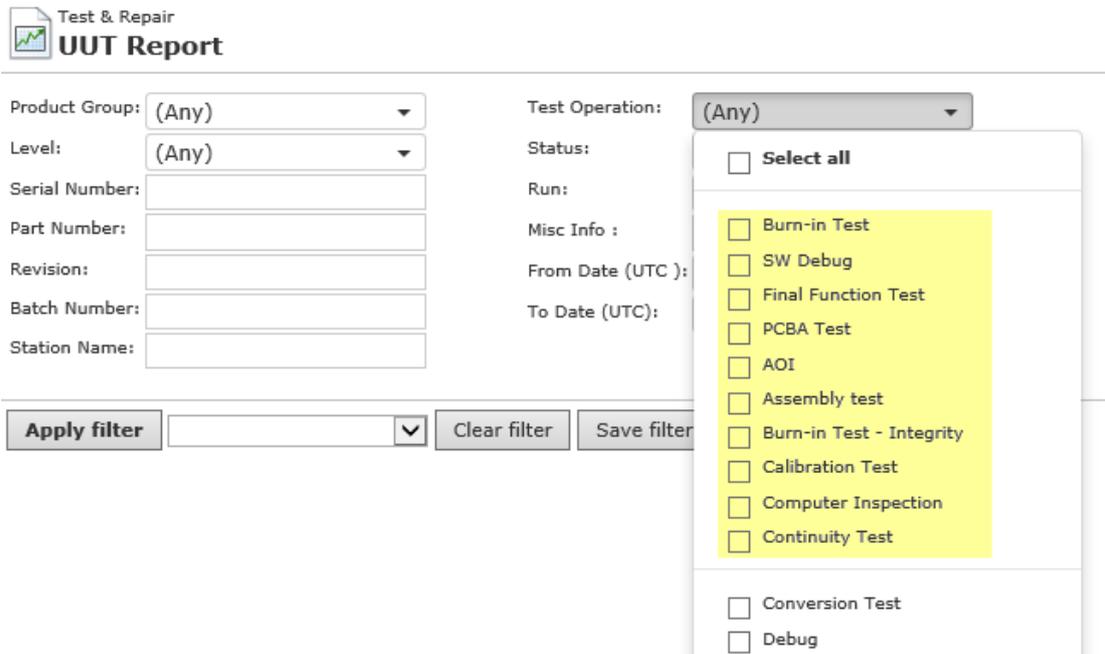
Export data

A new option in the *Action* menu allow you to export detailed data from the grid records to excel (Serial Number, Part Number, etc.) in addition to the data grid table.

Miscellaneous

Auto remember options

The WATS Web Applications will remember more of the selected User options made during sessions. As example, the "Top 10 Failures" options in *Test Step yield & analysis* and UUT Report options. In addition, the Test Operation list in the filter will show "top 10 favorites" on top of the complete process list.



The screenshot shows the 'Test & Repair UUT Report' interface. It features a search form with fields for Product Group, Level, Serial Number, Part Number, Revision, Batch Number, and Station Name. There are also fields for Test Operation, Status, Run, Misc Info, From Date (UTC), and To Date (UTC). A dropdown menu is open for the Test Operation field, showing a list of test operations with checkboxes. The 'Select all' option is at the top, followed by a list of test operations: Burn-in Test, SW Debug, Final Function Test, PCBA Test, AOI, Assembly test, Burn-in Test - Integrity, Calibration Test, Computer Inspection, and Continuity Test. Below this list are 'Conversion Test' and 'Debug' options.

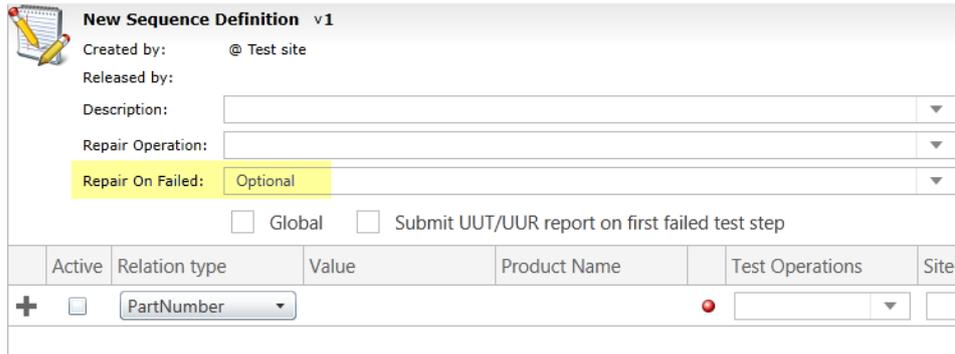
New login

New login page supporting touch friendly devices and restricted access.

Manual Inspection (MI)

“Require UUR” option in CP is now a tristate option.

- **Required:** UUR GUI appears in the MI sequence at Failure and the operator must add repair details.
- **Optional:** UUR GUI appears in the MI sequence at Failure and the operator chose to add repair details.
- **Never:** UUR GUI will not appears in the MI sequence at Failure and the operator cannot add repair details



The screenshot shows a web form titled "New Sequence Definition v1". It includes fields for "Created by:" (with a user icon), "Released by:", "Description:", "Repair Operation:", and "Repair On Failed:". The "Repair On Failed:" dropdown menu is highlighted in yellow and currently shows "Optional". Below these fields are two checkboxes: "Global" and "Submit UUT/UUR report on first failed test step". At the bottom, there is a table with columns: "Active", "Relation type", "Value", "Product Name", "Test Operations", and "Site". The first row of the table has a "+" icon, a checkbox, a dropdown menu with "PartNumber" selected, a red dot, another dropdown menu, and an empty field.

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