



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 www.virinco.com/wats

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
 - 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.

Part Number	Process	Total Count	FPY Count	FPY	SPY	TPY
...	Functional test	2 125 961	2 044 467	96.2 %	96.2 %	96.6 %
...	Functional test	619 819	593 315	95.8 %	97.9 %	98.8 %
...	Functional test	505 857	552 069	94.2 %	96.3 %	96.7 %
...	Functional test	353 180	329 999	93.4 %	97.5 %	98.1 %
...	Functional test	338 703	322 505	95.2 %	97.8 %	98.4 %
...	Functional test	304 977	288 962	94.7 %	97.1 %	97.5 %
...	Functional test	181 976	172 446	95.1 %	97.7 %	98.3 %
...	Functional test	91 970	86 532	94.1 %	96.3 %	96.7 %
...	Functional test	88 080	82 720	93.9 %	97.3 %	97.9 %
...	Functional test	77 478	71 461	92.2 %	96.1 %	96.9 %
...	Functional test	76 648	71 949	93.9 %	97.6 %	98.2 %
...	Functional test	76 348	67 329	88.2 %	94.1 %	95.8 %
...	Functional test	74 996	69 829	93.1 %	96.6 %	97.8 %
...	Functional test	66 370	61 910	93.3 %	96.9 %	97.8 %
...	Functional test	64 627	60 000	92.8 %	96.9 %	97.7 %
...	Functional test	60 771	54 647	90.9 %	96.2 %	97.3 %

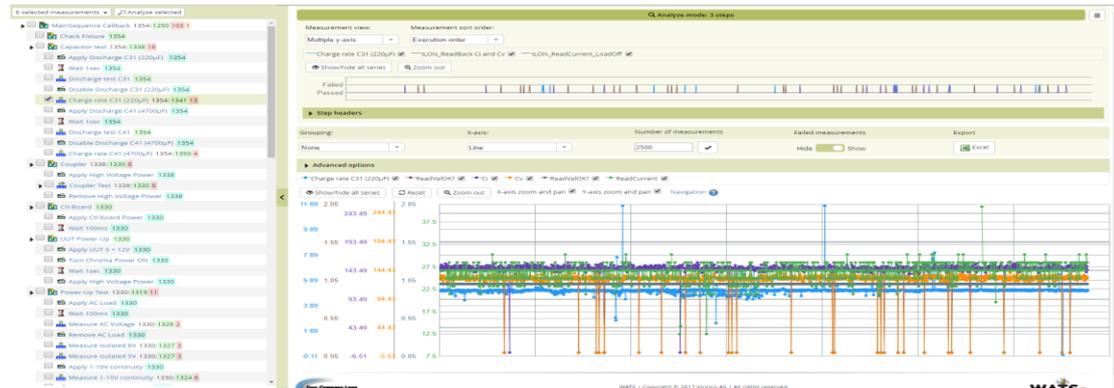
From the Yield report, drill into the *Process Capability analysis* report for big data analysis, or the well-known Product & Test yield report to add test SW details. See also [Big Data Analysis](#)



Test Step yield & analysis

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

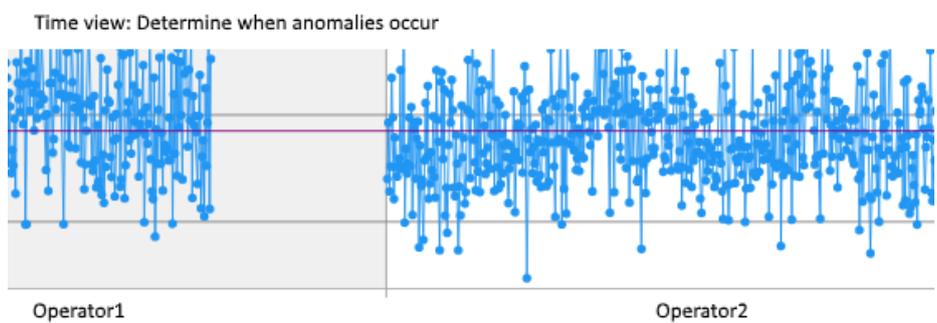
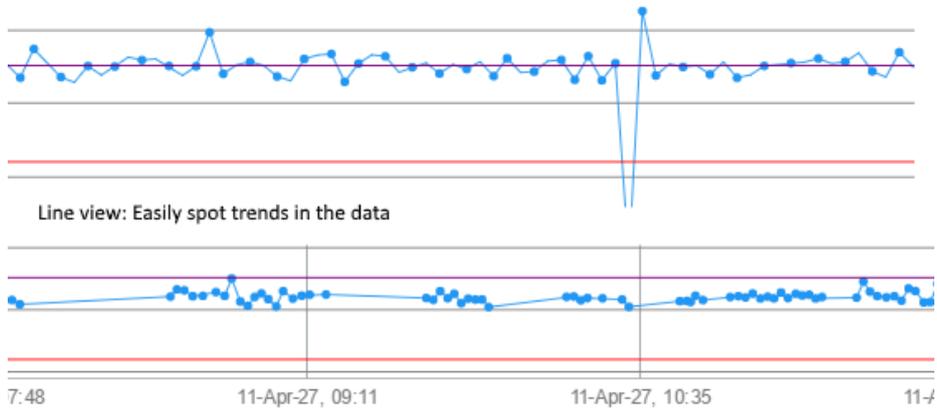
New Details View (preview)



The new step details view

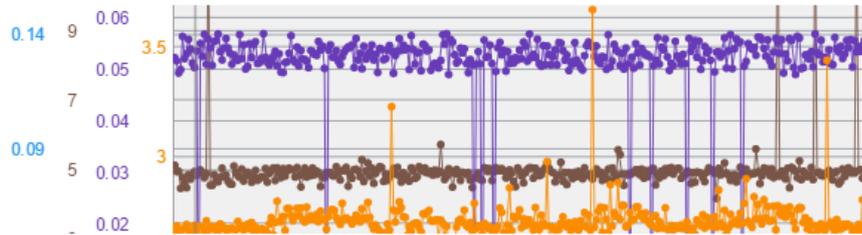
The new step details view has a wide range of improvements over the old report:

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

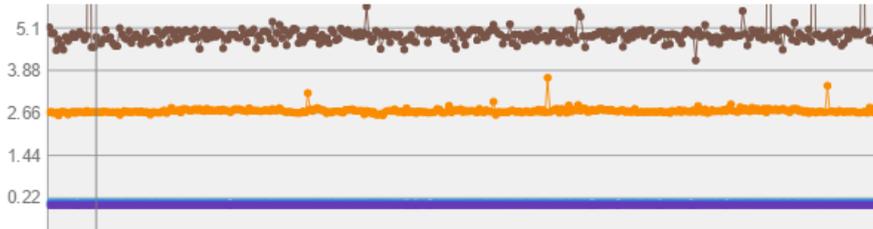


Grouped line view: View data grouped by a number of factors, like part number, operator or station

- 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:



Multiple y-axis: Give each series each own axis. Move each series separately if needed.



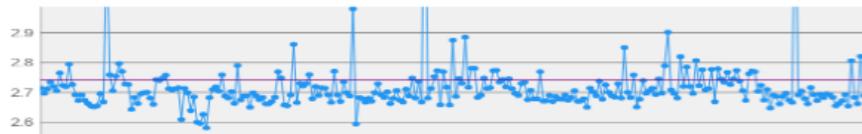
Single y-axis: View each series in relation to each other with a single y-axis.

Mic Calibration
 Charge rate C31 (220µF)
 Charge rate C41 (4700µF)

Measurements: 1000 Mean value (μ): 2.741 Stddev (σ): 0.104 Variance (σ^2): 0.208 C_{pk} : 2.058 C_{p^*} : 2.729 Compari...

Charge rate C41 (4700µF) +3 σ / 3.05 Avg / 2.74 -3 σ / 2.43 High Limit / 3.8 Low...

Show/hide all series X-axis zoom and pan Y-axis zoom and pan



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.

Chart height: px

Plot line thickness: px

Decimal format scale:

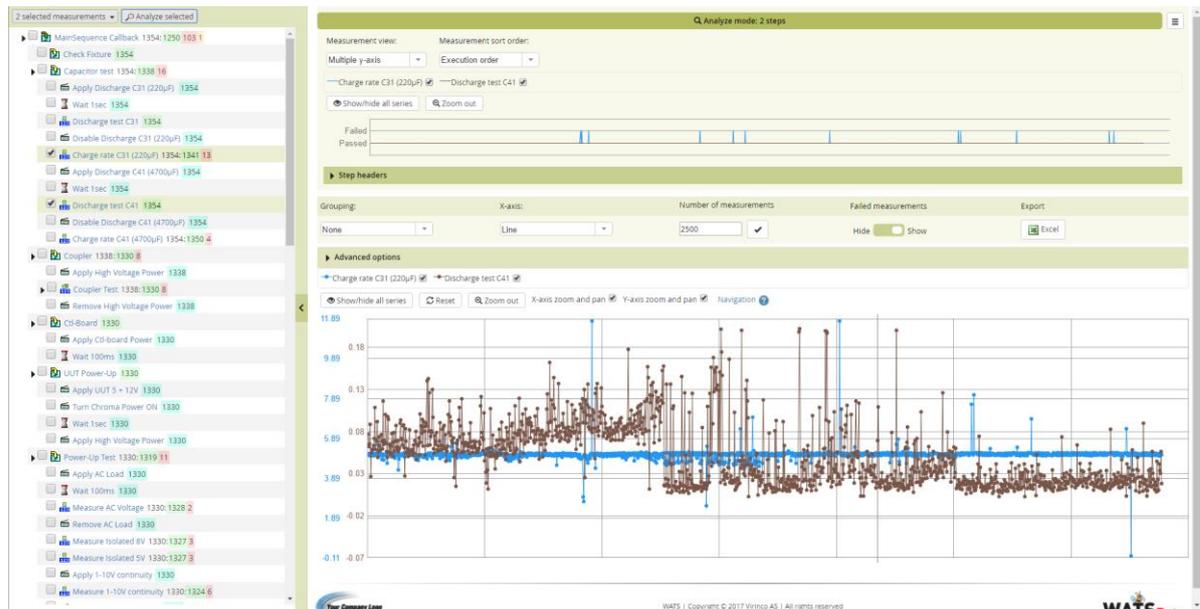
Synced charts

Hide measurement markers

Hide frequency charts

Hide measurement options

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



See also this introduction video:

<https://www.youtube.com/watch?v=yGsM2a4nw5E&t=256s>

Chart Overlay general available

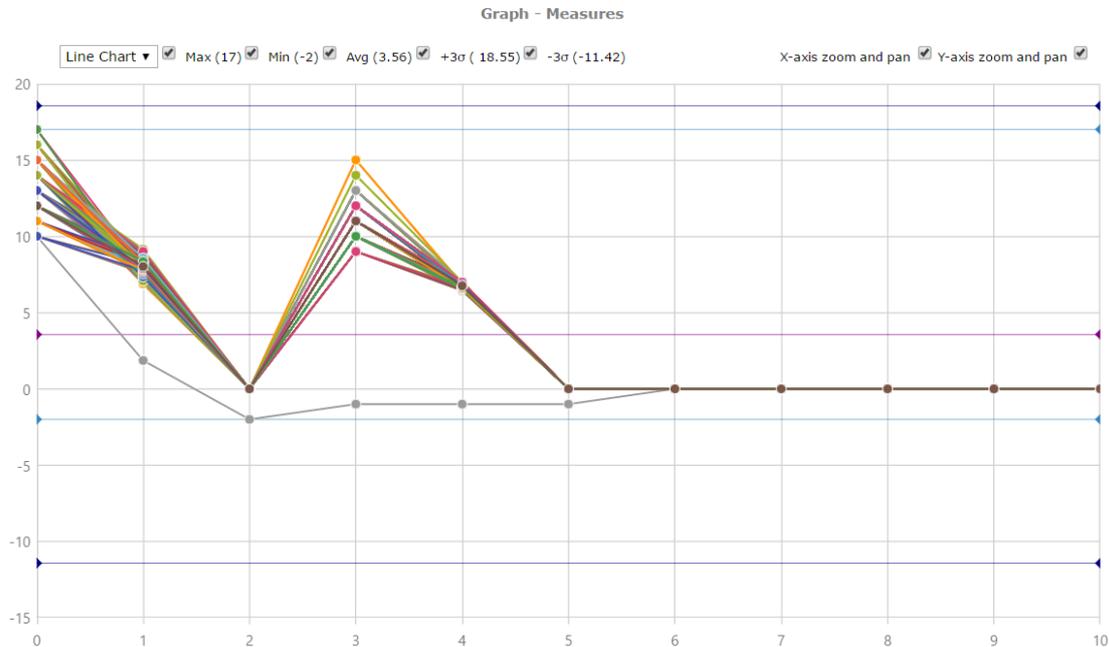
The chart overlay is now general available.

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.

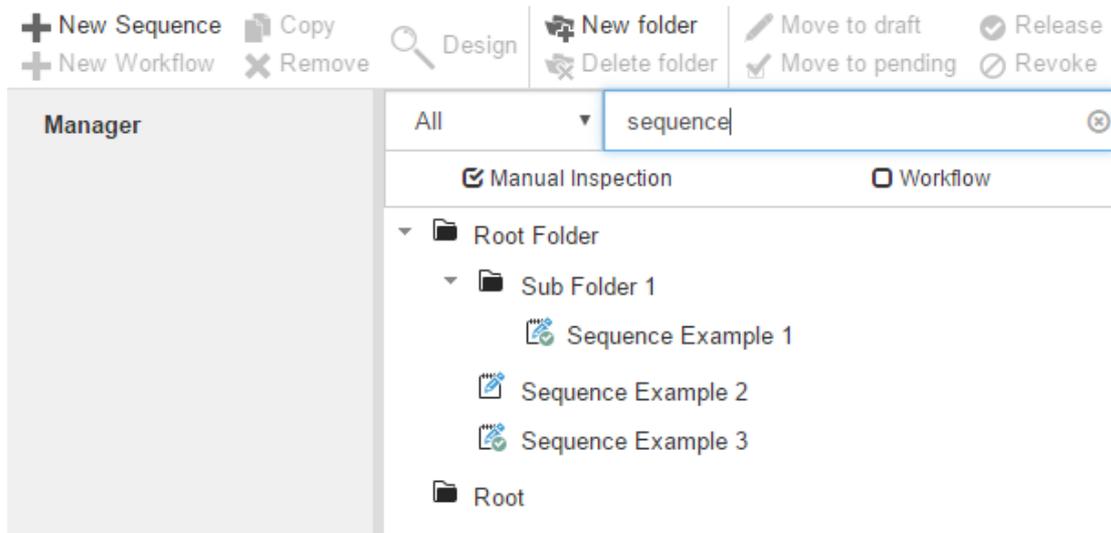


New Manager in Control Panel

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

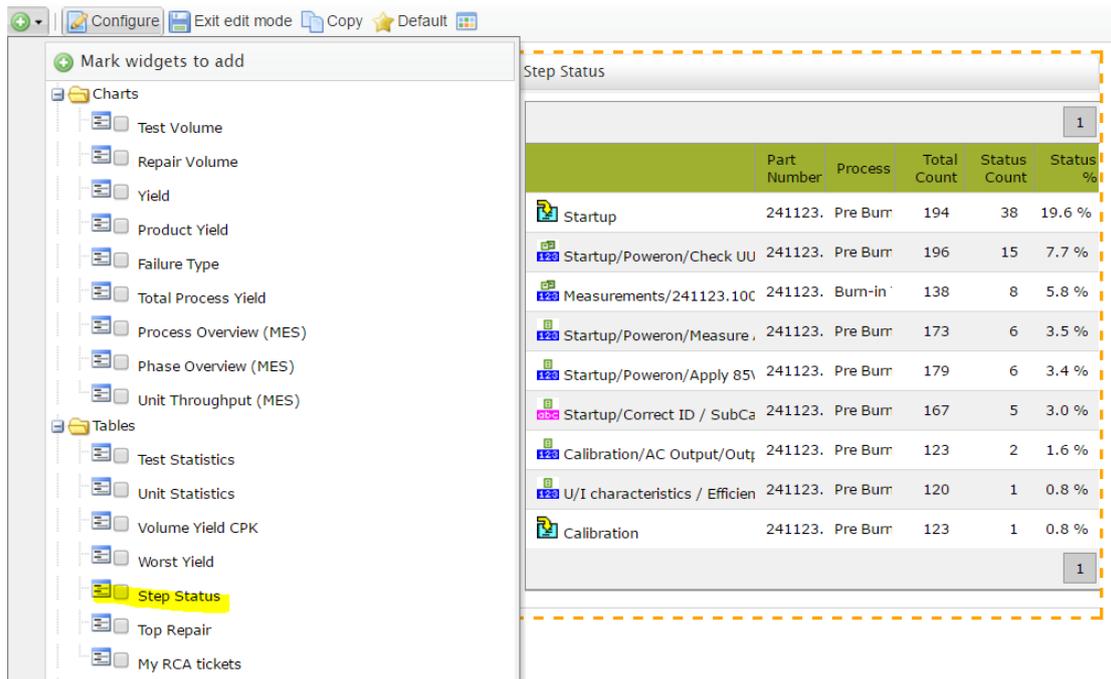
The dashboard module has some minor improvements, in form of a new widget (step status list) and drilldown functionality.

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.



Action menu on all dashboard widget

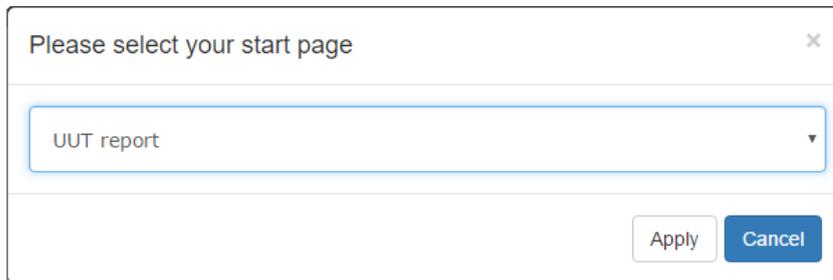
All dashboard components have now a drill-down option using the WATS Action menu. Right click on a widget and select one of the WATS reports. A new tab will open with prefilled filter based on the widget filter in the Dashboard.

Part-Number	Product Name	Process	Tot#	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 %
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		10	1 264	96.5 %	98.5 %
	Repair Time					
	Export Wizard					
	Test Step yield & analysis					
	Product & Test yield					
	Product yield					
	Product by Revision yield					
	Total Process yield					
	Rolled Throughput yield					

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

Apply Cancel

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

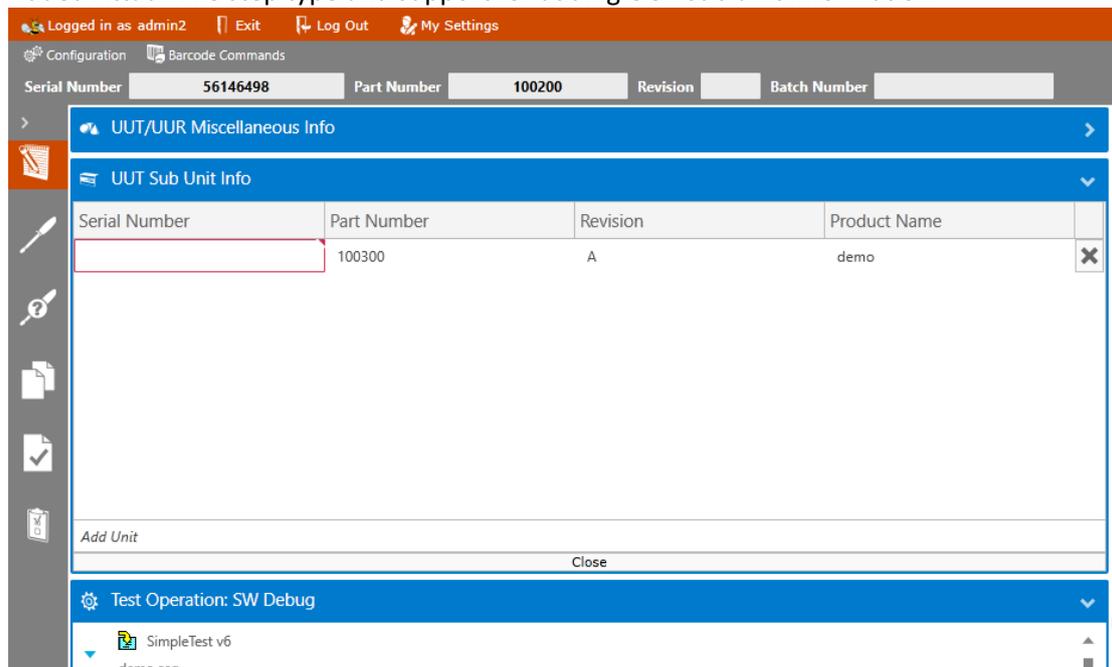


Start page
Default start page (Reporting)

UUT report

Manual Inspection

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



Logged in as admin2 | Exit | Log Out | My Settings

Configuration | Barcode Commands

Serial Number: 56146498 | Part Number: 100200 | Revision: | Batch Number: |

UUT/UUR Miscellaneous Info

UUT Sub Unit Info

Serial Number	Part Number	Revision	Product Name
	100300	A	demo

Add Unit | Close

Test Operation: SW Debug

SimpleTest v6
demo seq

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.