January 2021

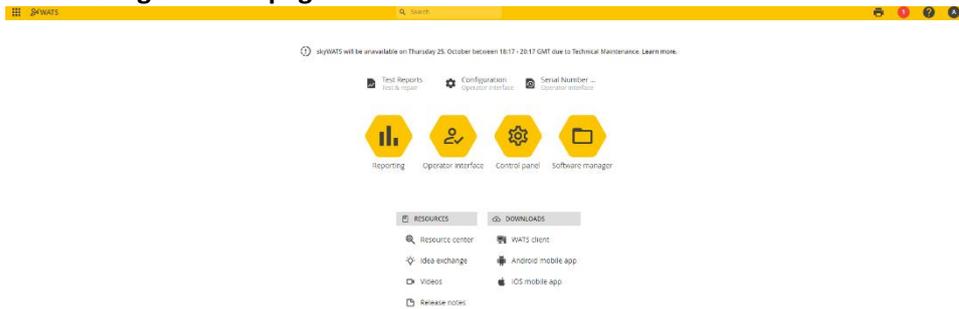**WATS Server 2020.3 Release Note**

Major Feature Areas

WATS Portal search & favourites

The favorites feature will allow users to mark modules (pages) as a favorite so they can easily be accessed from the start-page or top left menu.
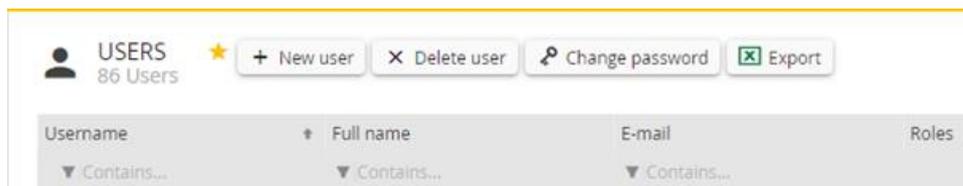
As a complementary feature, users can search for modules and articles using a new search bar placed in the navigation bar.

New redesigned start page

Module marked as favorite
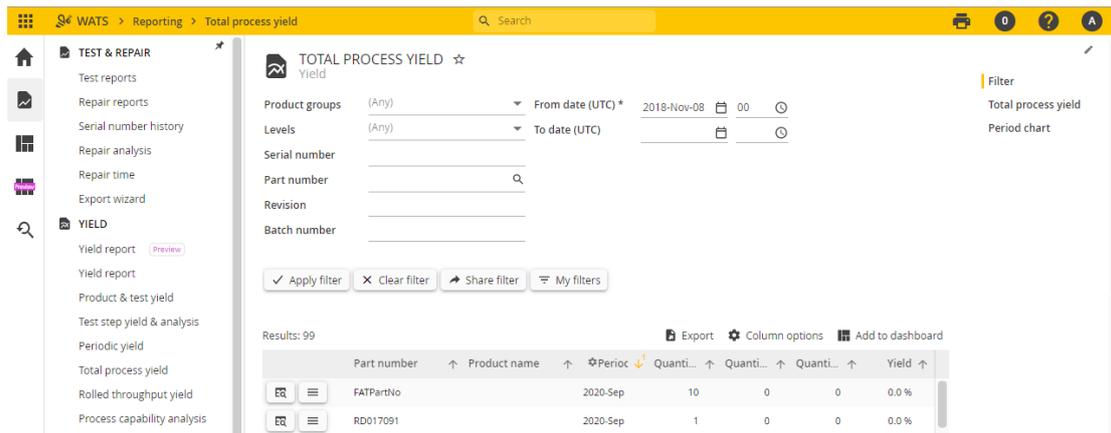When you navigate to a module you can mark or unmark it as a favorite from the header layout bar. The star icon is place next to the main title of the module.
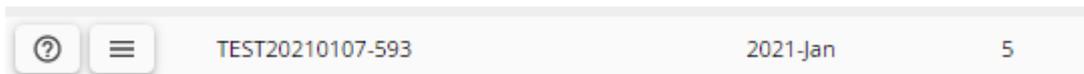
Total Process Yield

The total process yield has been updated to HTML5 and includes some new features. A new drill-down button has been added, navigating the User to the *matrix view*. This view displays the detailed dataset that makes up the data for the selected row in the grid. This will allow the User to see which serial numbers that are used for the basis of the "Quantity started" calculated number.

The button is displayed when a *Unit verification rule* is defined for the part number. If no unit verification rules are specified, and the user has permissions to create *Unit verification rules*, a (?) button will be visible with a shortcut to the *Unit verification rules* menu in Control Panel.

Matrix view drill-down

When drilling into the matrix view, the dataset for the selected row in the total process yield will render a new grid with extended information.

Serial number	Part number	Test operation	Started	Finalized	matrixViewId
☰ Filter	☰ Filter	☰ Filter	☰ Filter	☰ Filter	☰ Filter
FATTest-25078	FATPartNo	Finalize	2020-09-22T10:50:24.883		pa4jp7rwdw
FATTest-56796	FATPartNo	Finalize	2020-09-22T10:53:44.157		9triy8hb8r6
FATTest-58678	FATPartNo	Finalize	2020-09-22T10:56:04.19		i4u9rogd6kg
FATTest-16897	FATPartNo	Finalize	2020-09-22T11:01:03.667		nwwub1i7i1
FATTest-50263	FATPartNo	Finalize	2020-09-22T11:04:01.69		htzbgu7cevm
FATTest-44232	FATPartNo	Finalize	2020-09-22T12:19:52.93		aza4wy6dxgj
FATTest-38692	FATPartNo	Finalize	2020-09-22T12:22:52.37		6zv1jzhca4
FATTest-17519	FATPartNo	Finalize	2020-09-22T12:23:52.467		6e7w6kph1va
FATTest-299	FATPartNo	Finalize	2020-09-25T09:13:07.877		zdntq7ucl1
FATTest-51255	FATPartNo	Finalize	2020-09-25T12:35:27.57		cmajrjfgmis

Reporting smart filter

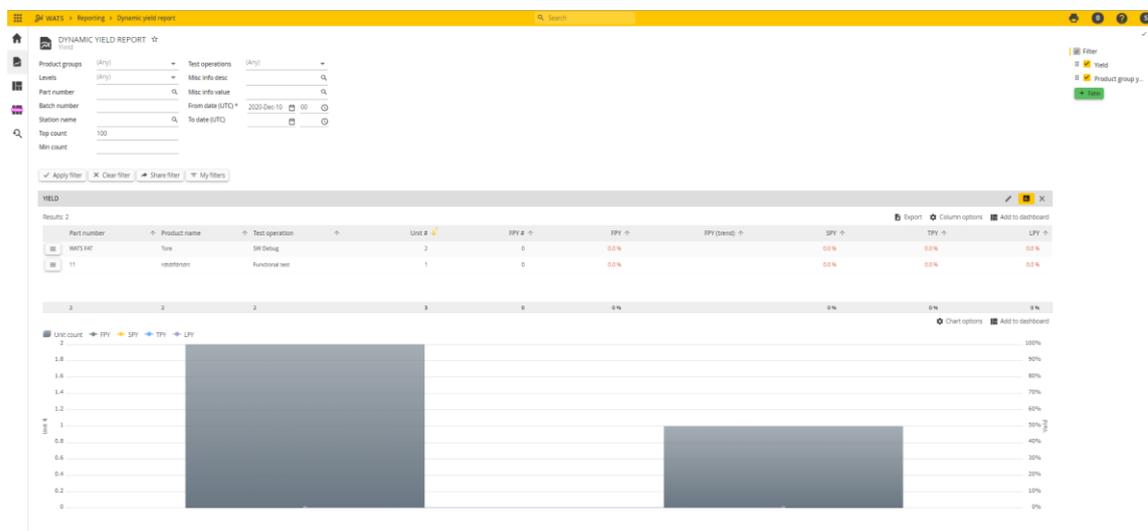Misc fields now include search for values.
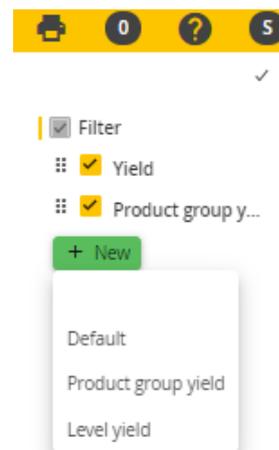
New Yield report- Preview

The new yield report in preview allow users to customize their own requested datasets and charts. The new report allows users to create yield templates familiar with the current yield report, such as product group yield etc. While the current yield report only displays a dataset after the filter has been applied, the new yield report allows dynamic queries based on operations performed by the user, such as changing column order or column sorting. Users can also add or remove columns to get a purer dataset only containing the relevant information.

This new report will eventually replace the current yield report.

Creating custom data sets

The user can open the report navigator and click the "new" button which will show a dropdown with templates. When the user selects a template, he can change the name of the grid and select the columns he or she prefer and apply the sorting of choice. This grid will then be saved at user level, which allow the user to come back to the same setup at next login. The new yield report supports up to 20 grids per user.

Column options and sorting

A new set of column options have been added to create more custom queries. The columns can be toggled on and off and will trigger a new query to the server.

The major difference with this version of the yield report is that column order and sorting have impact on which data is displayed in the report. When a new query request is sent, WATS check what sorting is enabled, and the order of the applied sorting. Then it looks at the column order to determine the priority of the request.
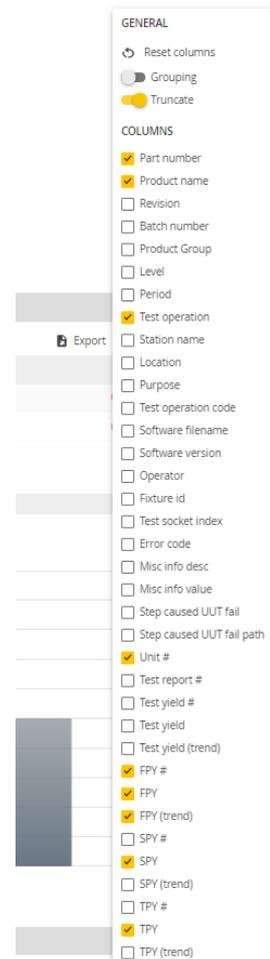
Example:
Case 1: Grid is sorted on unit count.
The request will query out the units with the highest unit count and sort them from highest to lowest while using the **top count** property in the filter.

Case 2: Grid is sorted on FPY count.
The request will query out the units with the highest FPY count and sort them from highest to lowest. This may affect the unit count to not include the units with the highest unit count in the data set, since the top count displays the results with highest FPY count, not unit count.

Previously, when column where hidden, the dataset did not change. This caused some confusing scenarios where yield report displayed two rows of the same part number such as the following example (test operation and product name column is hidden):

GENERAL
- ↻ Reset columns
- ⬤ Grouping
- ⬤ Truncate

COLUMNS
- ☑ Part number
- ☑ Product name
- ☐ Revision
- ☐ Batch number
- ☐ Product Group
- ☐ Level
- ☐ Period
- ☑ Test operation
- ☐ Station name
- ☐ Location
- ☐ Purpose
- ☐ Test operation code
- ☐ Software filename
- ☐ Software version
- ☐ Operator
- ☐ Fixture id
- ☐ Test socket index
- ☐ Error code
- ☐ Misc info desc
- ☐ Misc info value
- ☐ Step caused UUT fail
- ☐ Step caused UUT fail path
- ☑ Unit #
- ☐ Test report #
- ☐ Test yield #
- ☐ Test yield
- ☐ Test yield (trend)
- ☑ FPY #
- ☑ FPY
- ☑ FPY (trend)
- ☐ SPY #
- ☑ SPY
- ☐ SPY (trend)
- ☐ TPY #
- ☑ TPY
- ☐ TPY (trend)

Results: 2

Part number	Unit #	FPY #	FPY	FPY (trend)	SPY	TPY	LPY
46106103	20	13	65.0 %		65.0 %	65.0 %	65.0 %
46106103	7	0	0.0 %		0.0 %	0.0 %	0.0 %
1	27	13	48.1 %		48.1 %	48.1 %	48.1 %

The new yield report will re-calculate the data set when columns or sorting change, which will result in the dataset only displaying relevant information based on the selected columns. The result will therefore look like this:

YIELD

Results: 1

Part number	Unit #	FPY #	FPY	FPY (trend)	SPY	TPY	LPY
46106103	27	13	48.1 %		48.1 %	48.1 %	48.1 %

New Dashboard module – Preview

The preview of the new dashboard module has seen further improvements in this version:

- **Subscribe to dashboard**
  Users can now subscribe to a dashboard, to receive the dashboard on email, either daily, weekly, or monthly.

- **Full screen mode**
  There is now a button located on the dashboard toolbar to set the dashboard in full screen mode. Note: using full screen mode is not the same as using the native full screen function in the browser, as full screen mode will also hide the WATS menu.

- **Chart labels**
  Several of the charts in the dashboard now include labels, making it easier to view the data without hovering over data plots with the mouse. Labels can be turned on/off in the widget settings on a per widget basis

- **New measurement widget**
  A new widget has been introduced, enabling view of a single measurement, similar to the chart in Step details (Test step yield & analysis).
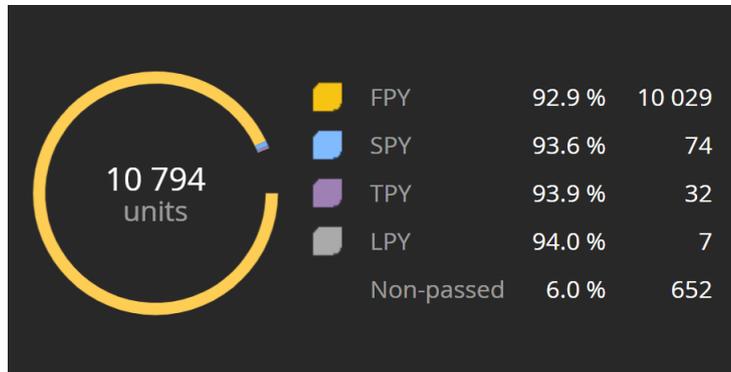

Note: For the preview version of this widget, a measurement path must be entered manually. We are looking into improvements to this for the full release of the dashboard.

- **New pie chart widget**
  A new pie chart has been added, enabling a quick overview of yield.

- **New Add-to-dashboard widgets**
  One of the goals of the new dashboard, is that the user should be able to add any part of the reporting application into a dashboard. Several new grids and charts around the reporting application has now gotten the add-to-dashboard button, enabling a user to add it directly to a dashboard. In 20.3, the following are added:

  Repair reports grid (from Test & repair > Repair reports)
  Total process yield grid (from Test & repair > Total process yield)
  Total process yield chart (from Test & repair > Total process yield)

- **Part number & station name auto complete in widget filter**
  In 20.2 auto complete suggestions was introduced for the part number and station name fields in the reporting filter. This feature is now also available in the dashboard filter.
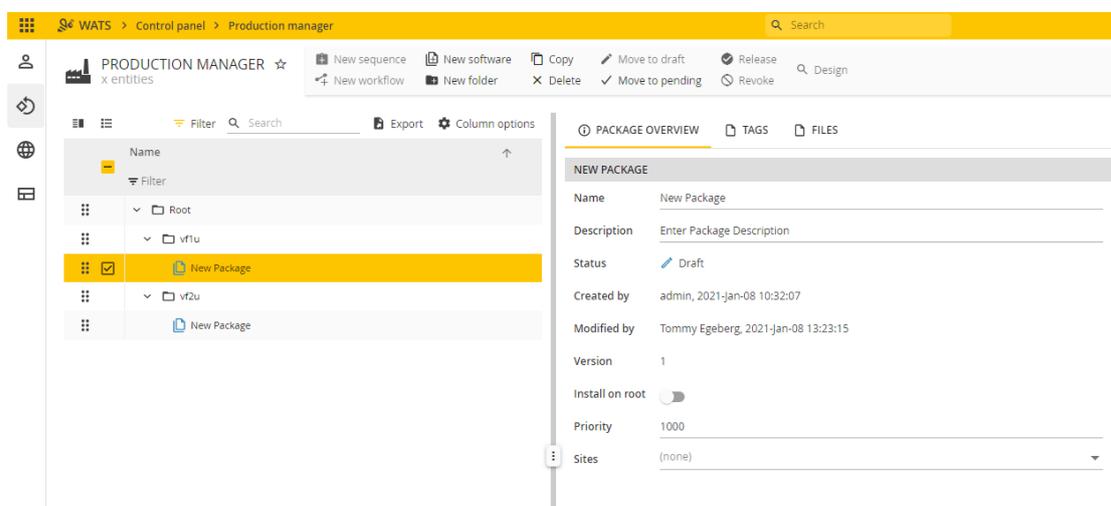
- **Minor features**
  - When editing dashboard, widgets can now be removed with the delete button.
  - The dashboard toolbar is now better optimized for smaller screens.
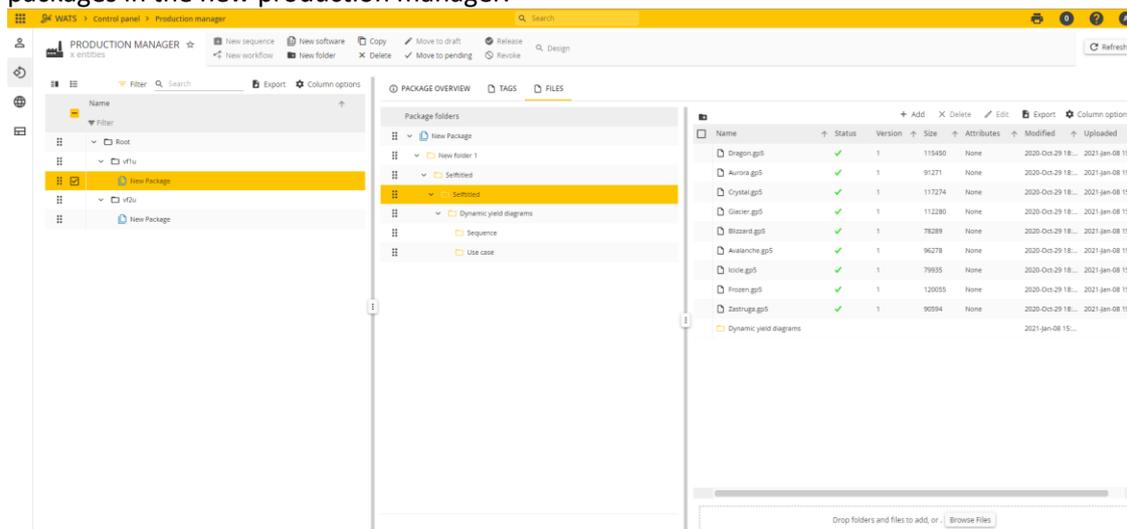 - The statistics overview widget now has a row for last 24 hours.
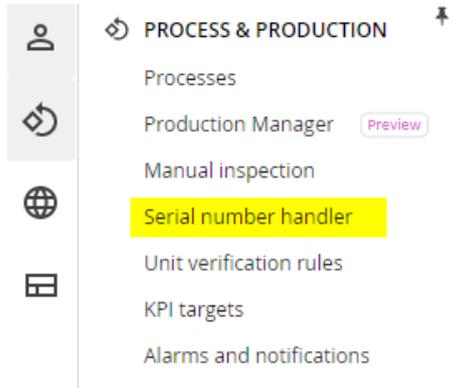
New Production Manger- Preview

A new Production Manager is under development and it will allow users to manage workflow definitions, manual inspection sequences and software packages - all in one place. This new module will replace the Silverlight version of the Software manager and the HTML5 version of the MES manager. At this point in the development phase, we have prioritized to replace the Software manager (Silverlight dependent). The new Production Manager in WATS 20.3 will only support software packages and virtual folders. Since the new Production Manager is in preview, the Silverlight version will still be available in this release, and they will operate in parallel.

Users can create and modify software packages and upload files and folders to these packages in the new production manager.

NOTE: The menu item known as Production Manager in version 20.2 and older is now renamed to Serial Number handler.

Control Panel – menu change

The menu items in the Control Panel have been rearranged and main menus renamed.
New main menus are:

- Users & account
- Process & Production
- System & Assets
- Products

Control Panel – Change log

Change log aims to provide a place for an audit trail, and keep track of important items that have been edited by User in the system like user settings, processes, etc.
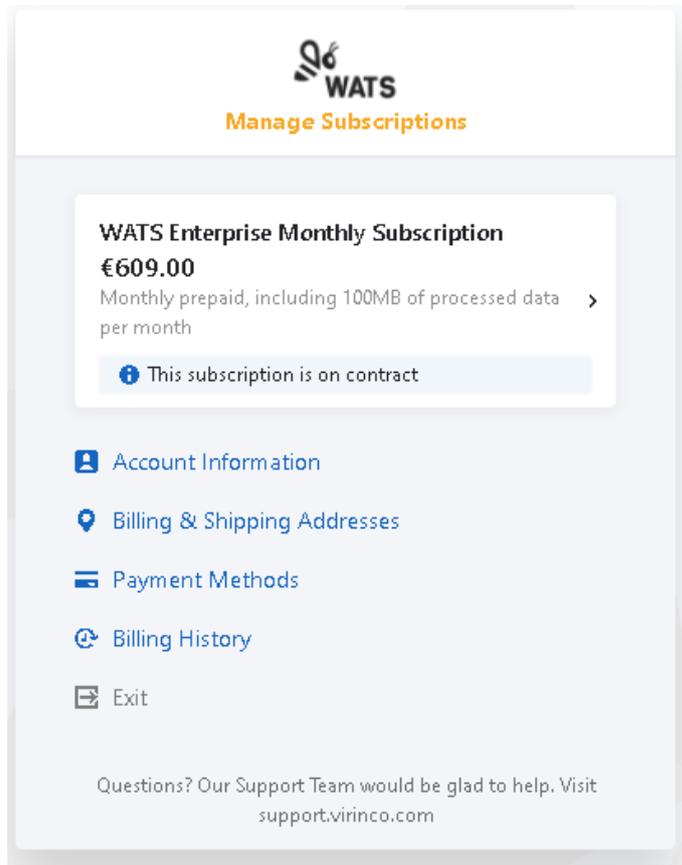

For performance reasons, the number of items in the change log view is limited to 1000 rows.

WATS subscription and payment

2020.3 contains a new subscription management UI (Chargebee).

Changes related to your subscription is now handled from within this new user interface. You may now easily change your plan, buy addons or make changes to PO number, billing address etc.

You can access the new subscription management UI from the Subscription tab on the Account settings page.

Please note:
Only cloud instances running our new plans (Basic, Analytics, Enterprise) will make use of this new subscription management UI. Legacy accounts will still need to use the legacy Account page from within the WATS Control Panel.

Database updates (on prem)

WATS used to use two databases, called TDM and MES. The MES database has been merged into the TDM database, so only the TDM database is now in use.

Some data that was duplicated and synchronized between TDM and MES no longer needs to be synchronized. For example, there used to be a small delay after adding a new process in the control panel and for that process to be available in the reporting filter.

Rest API

- **Added Write and Delete permissions to the Software, Production, Product, Asset and Manual Inspection endpoints**
  You may now specify delete or write permissions in the roles and permissions view.

- **Added RelatedRepairHistory / repair knowledge base available as Rest API endpoint**
  New Rest API endpoint: /api/App/RelatedRepairHistory

- **Added Get Unit data (Tags, Process and Phase)**
  Get detailed information about a specific unit.
  New Rest API endpoint: /api/Production/Unit/{serialNumber}/{partNumber}

- **Added create/edit/delete Barcode identifiers as Rest API endpoints**
  New Rest API endpoints:
  PUT /api/BarcodeIdentifiers/BarcodeIdentifier
  GET /api/BarcodeIdentifiers/BarcodeIdentifiers
  DELETE /api/BarcodeIdentifiers/BarcodeIdentifier/{id}
  https://virinco.zendesk.com/hc/en-us/articles/360017446159

- **Added new product group filters as Rest API endpoint**
  Create new product group filters with help of the Rest API.
  New Rest API endpoint: /api/Product/ProductGroupFilter

- **Included client id (MAC) in the api/SystemManager/Clients Rest API endpoint**
  The client identifier is now returned in the response.

- **New Add/Get/Delete Production endpoints**
  New Rest API endpoints for adding or updating units and production batches:
  PUT api/Production/Units
  PUT api/Production/Batches

- **New Rest API endpoint for obtaining list of changes applied to units**
  Useful for updating third party systems. The change can then be marked as handled by deleting it:
  GET api/Production/Units/Changes
  DELETE api/Production/Units/Changes/{id}

- **New Put Products/ProductRevisions endpoints**
  New Rest API endpoints for adding and updating products (part numbers) and their revisions:
  PUT api/Products
  PUT api/Products/Revisions

Miscellaneous features

- **Operator Interface:**
  A popup message box will now ask the operator to save or delete a temporally report (UUT/UUR) if they browse out from an ongoing session preventing reports to get stuck in "unsubmitted reports"
- **Synch Part Numbers to Product Manager**:
  Part Numbers logged to WATS as UUT or UUR reports are now synched to the Product Manager periodically
- **Change date picker first day of week to Monday for all reports**.
- **Changed 1, 7, 30 quick-pick in date picker Reporting to match WATS Mobile App and (new) Dashboard pickers:**
  Example: When clicking on the "7" button in date picker:
  Previous version = -7 days + current day
  WATS 20.3 = - 6 days + current day
- **Translation module added to Enterprise subscription**
- **Added UUT/UUR Report MB size on test/repair report grid**
- **GUI Theme**
  Dark and Contrast theme is now partly supported in Reporting
- **Reporting > Email > Yield monitor no longer supported** (replaced by Alarms and notification) https://virinco.zendesk.com/hc/en-us/articles/360014598580-End-support-for-Email-Yield-monitor
- **Production Manager is renamed to Serial Number handler**.

Bug fixes

Bug fixes in this list is a summary of items since the last Server release. Most items have already been deployed to cloud accounts through periodic maintenance.

- Custom filter ordering may cause exception in some cases.
- OI: allow submitting UUR without failures
- MI: Issue with deleting blank sequences
- TSYA details view - Selecting grouped line revision do not show any measurements
- UUT report: Execution time is calculating wrong DD, HH, MM when seconds are millions
- Yield report: Level filter includes sub-levels recursively
- OI MI: "Repair" grid sometimes does not display full height
- OI MI: PDFs triggers 'potentially dangerous Request' on OnPrem versions with enhanced security levels.
- UUT report: Update header not working on Firefox
- UUT: Saving header adds empty row to misc info
- RTY: Exception occurred if a period only contains nan/inf values.
- Publish client update permission not set on legacy accounts.
- PCA: Aggregated step details throws an error in some special cases.
- Workflow Repair: Workflow is not suspended when workflow enters repair.
- Station report: PPM formatting.

- Export wizard: Infinity values cause Certificate export to crash
- Alarms and notifications: Can't update actions on old rules
- OI MI: Load misc. info values for sequences that have repair process specified
- Asset Manager: Calibration and Maintenance is logged wrong
- MI: Attach file dialog box sometimes take too much space and renders scroll bar
- CP Tokens: Create Token GUI adds non-existing space to web client and role
- CP Tokens: Expire limit to date forces minimum 1 year
- Product Manager: Unassociated part numbers grid height issue
- Product Manager: Unassociated part numbers does not show loader correctly
- OI: Reset OI settings/fingerprint must not delete the station entry
- Reporting: SNH sometimes does not apply filter when pressing the enter key.
- MES Manager: Cannot delete virtual folders
- CP Roles: Creating new headless role creates a non-headless role instead
- CP: Adding users may result in a Bad request on legacy accounts
- CP: System manager returns permission denied for restricted users
- TSA Details: Rendering wrong measurement chart when a multi numeric step is expanded
- Step details: Grouped line renders plots in wrong order.
- Add signing of MI/WF designer certificate
- Report is quarantined when the number of nested steps exceeds 15 levels
- UUT: Unable to drill into step details if revision is not set
- Alarms and Notifications: Calculation summary does not contain filter columns.
- Export Wizard: No data exported when header excel export.
- Unable to change password if there are only one user registered.
- Alarms and Notifications: Actions not working if specifying multiple email addresses in the recipients list.
- OI: Comp ref is not correctly validated when selected from BOM
- Run is not correctly applied when loading filter
- Export Wizard: Improved export performance
- OI: FailCode lookup on UUR with only FailCode GUID failes
- Export Wizard: Excel says that exported Excel file is bad
- Export Wizard: UUR-Excel and -CSV export does not work
- Export Wizard: Only exports first 1000 columns to Excel and CSV
- Processes: Repair Categories are not always shown when editing a repair operation
- OI: Workflow-repair before reaching maximum test attempts
- Export wizard: Download button does not work in cloud environments
- Session cookie is not deleted when the browser is closed
- UUT & UUR report: User friendly error message in case of deleted reports
- OI MI: "Redo" on attach file step sometimes does not remove previous file from WRLM
- OI MI: "Attach file" steps does not always trigger upload dialog
- CP Tokens: Make WATS help navigate to correct article