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Fact Sheet

DXC Quality and Sample Management

Advanced management of quality control, sampling and release processes for process industries

Advantages

- Fast and accurate release of high-quality finished materials
- Enable a continuous high-volume production flow
- Efficient processes for quality sample creation and labelling
- Easy sample registration and automatic creation of Quality Orders
- Enable faster, more flexible quality processes with hand-held devices
- Avoid resource issues and delays with forecasting and planned quality work
- Reduce waste with accurate yield calculations for ingredients and semi-finished goods
- Enforce approval rules with Unique Signature option
- Can be integrated with your existing manufacturing quality control system

In a continuous production environment, the fast and accurate release of high-quality finished materials is a critical process. DXC Quality and Sample Management extends standard Microsoft Dynamics 365 capabilities with advanced logic that controls the creation, registration, testing and handling of samples from batches and license plates, and the automatic release or blocking of products based on test results taken during the production process.

DXC Quality and Sample Management and LIMS

With DXC Quality and Sample Management, you can link quality samples taken during purchasing, receiving, production and handling processes to batch attributes and to tests that are made by your internal or external laboratory personnel.

You can then use the results of these tests to control the automatic release or blocking of batches and license plates.

Sampling and registration of samples in the laboratory can be part of an automated process that is integrated with your existing manufacturing quality control system, or samples can be created and handled on an ad hoc basis.

The solution capabilities cover the basic requirements for a Laboratory Information Management System (LIMS).

Flexible Quality Sample Management capabilities

Quality sampling and testing can be done based on sampling sequences and frequencies that are related to, for example, license plate IDs or license plate creation times.

If all license plates have related samples and quality orders, the release of each license plate can be controlled automatically.

If, for example, samples are taken from every second license plate, but only samples from every fourth license plate generate Quality Orders, then a failed quality order would result in the blocking of the affected license plate and all intermediate license plates in the test sequence until the last passed quality order.

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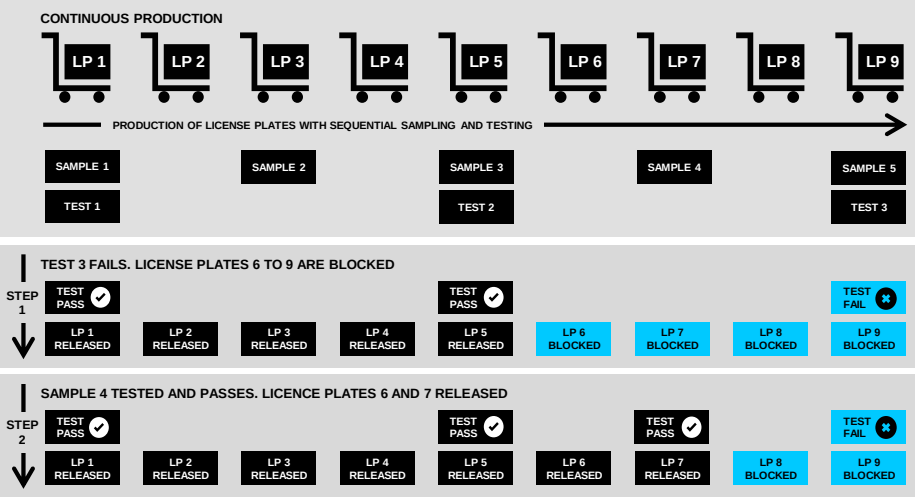
Automatically control the release of batches and license plates in continuous production environments.

When quality orders fail, testing of additional samples helps pinpoint the affected goods to limit waste



You can then test additional samples from the blocked license plates to identify the specific goods that need to be blocked.

Efficient processes for quality sample creation and labelling

Quality sample creation and registration can be done manually or automatically with a sampling frequency that is defined based on batch number (for bulk production), product ID, or a combination of both.

As samples are taken, sample labels can be printed manually or automatically, and label- and printer-settings are controlled through your existing WHS document routing processes.

Enable quality processes with the use of hand-held devices

You can use hand-held devices to implement and document key quality processes, including the creation and registration of samples, the registering of test results, and to enable quality control processes and logic when testing is needed as part of the goods receival process.

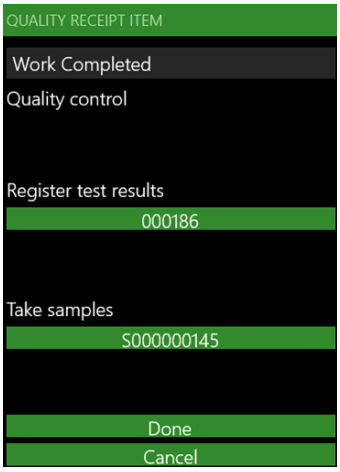
Easy sample registration and automatic creation of Quality Orders

When registering a quality sample, values such as “Item”, “Reference Type”, “Approval Status” and “Site” are compared with an Advanced Quality Association and a pre-defined sampling frequency to define if a Quality Order should be created or not.

The registered sample also contains information on where the sample should be stored, depending on if it is to be archived, tested in the lab or stored for stability testing.

Controlling availability of on-hand materials with Disposition Codes

As part of your quality process, you can automatically control the availability of on-hand batches and license plates for activities such as reservation, picking and shipping. For example, if goods need to be frozen for four hours before packing, their Disposition Code is set to “Unavailable” until this time has elapsed. The Disposition Code and status are shown on on-hand forms and for individual batches and license plates, and you can set up inventory locations to only receive items with specific Disposition Codes.



Support and simplify quality processes by using hand-held devices

New capabilities for set-up and automation of testing processes

DXC Quality and Sample Management introduces new capabilities within Test Groups and Advanced Quality Orders that optimize testing, validation and approval processes for the process industry.

You can define the priority and the frequency of execution of each test in a Test Group, validate priority 1 tests automatically and auto-validate a Quality Order when the last priority 1 test is validated.

If a test fails, supplemental tests can be created automatically.

You can calculate test results automatically, based on the results of other tests in a test group, and calculate the cost for each test.

You can also transfer selected test results to batch attributes for use in, for example, product documentation such as certificates of conformity and analysis.

Validation and approval of quality orders and priority 1 lines can be done with a "Unique signature" option that ensures that the same record cannot be signed twice consecutively by the same user. This means, for example, that the same person cannot validate and re-open the same Advanced Quality Order.

Finally, when testing is complete, a quality order report documenting results can be printed automatically, and version control and historical logs of previous versions of a test group will help you track and document changes.

Advanced Quality Associations for quality sample registration

The solution adds new Advanced Quality Association options for the registration of quality samples:

- A reference type "Return Orders" has been added for use in testing of goods that have been returned by customers
- New event types "Release" and "Start" have been added for the reference type "Production" for use in line-clearance tests – such as validating cleaning or functional testing of sensors – before production start

You can also define the frequency of creation of quality orders based on samples taken from both batches and license plates.

Forecasting and planning of quality work

In the process industry, quality control requirements can be extensive, but personnel and resources for sampling and testing can often be limited. So accurate short- and long-term planning and forecasting of quality work is critical to ensure that you can meet customer expectations and deadlines.

DXC Quality and Sample Management enables forecasting of quality work based on planned production and purchase orders from your MRP, incoming orders, open orders and existing, unregistered samples.

The quality work forecast calculation is run after your MRP has run and includes:

- An overview of existing (unregistered) and planned quality samples
- An overview of existing (unstarted) and planned advanced quality orders
- Reservation of test capacity, based on planned and actual quality orders with approved advanced quality associations
- An overview of planned tests

Features

- Advanced logic for the creation, registration, testing and handling of samples from batches and license plates
- Automatic release or blocking of products based on test results from the production process
- Flexible definition of sample frequency for batches and license plates
- Automatic printing of sample labels using existing document routing processes
- Advanced criteria for defining when Quality Orders are created for samples
- Auto-validation of Priority 1 tests and of Quality Orders when all priority 1 tests are validated
- Control of transactions and consumption of on-hand materials, based on disposition codes
- Define the priority and the frequency of execution of each test in a Test Group
- Developed specifically for Dynamics 365 Supply Chain Management and the process industries

More accurate calculation of batch manufacturing date

In many production systems, the manufacturing date of a batch is set when the production order for the batch is created, for example, during firming-up of master planning. But the production of the batch itself may actually take place at another time.

This can affect calculated "shelf advice", "best before" and "expiry" dates.

DXC Quality and Sample Management gives you full flexibility to calculate the manufacturing date based on:

- An initial calculation date (such as the production start-, end- or delivery-date)
- An offset of a certain number of days (e.g. for the actual production process)
- A "workday calendar" that corrects for non-production days, such as weekends, in production schedules

Yield calculations for ingredients and semi-finished goods

In Microsoft Dynamics 365 Supply Chain Management you can only define a yield percentage for complete "Formulas" and 'Planning Items' for finished products.

DXC Quality and Sample Management extends these capabilities so you can define yield percentages for the individual raw materials and semi-finished goods that make up the final production formula.

When you set up yield percentages for ingredients and semi-finished goods, the respective waste or scrap percentage will also be shown, and the correct gross quantity of the goods will automatically be ordered for a specific production allowing for expected wastage.

Yield values can be defined on released products, on BOMs and Formulas and on Production Orders and Batch Orders.

Everything you need from one trusted partner

Contact DXC to hear more about how Quality and Sample Management can help you manage your quality control, sampling and release processes more efficiently — or to discuss other business needs.

With a strong ERP foundation and deep IT capabilities, DXC can offer expert help on everything from infrastructure, hosting, support and service to management and process consultancy.

Our experienced IT specialists will help you find solutions that address your current challenges and enable your future plans.

Learn more at www.dxc.technology

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