

YES



YES! Quality manager manual



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1 Document information

1.1 History

Version	Author	Edits/Changes	Date
1.0.0	jwi	Document creation	20.07.2018

1.2 Co-Applicable Documents

Source	Description	Link
Technet	div.	https://technet.microsoft.com/
MS DOCS	Documentation	https://docs.microsoft.com/en-us/dynamics365/unified-operations/fin-and-ops/index

2 YES! Quality manager – Funktion



The YES! Quality Manager App for MSDyn365FQ is not only an instrument in order to perform regular process-controlled quality assessments - it contains also parts of a Labor Information Management System (LIMS). The App is designed especially for sample capturing and was developed so that also the requirements of the processes, legal regulations and the necessities of various industries can be met.

2.1 Description oft the requirements

In order to manage and extend the **quality management** the sub-modules of the **quality control** and **quality management** were cut out from the **warehouse management** and subsequently implemented into an independent module with its own **workspace**. In addition, the module was amended with a **sample capturing** logic of a LIMS. Furthermore, the **test variables**, **tests** and the **test groups** were extended by several functions and information. The standard wording was adapted to fit the field of Quality Control/Quality Management.

3 Parameters

For the initial setup of the YES! Quality Manager some legal entity related preferences need to be done.

3.1 Setup of the Inventory and warehouse management parameters

Quality management > Setup > Inventory and warehouse management parameters

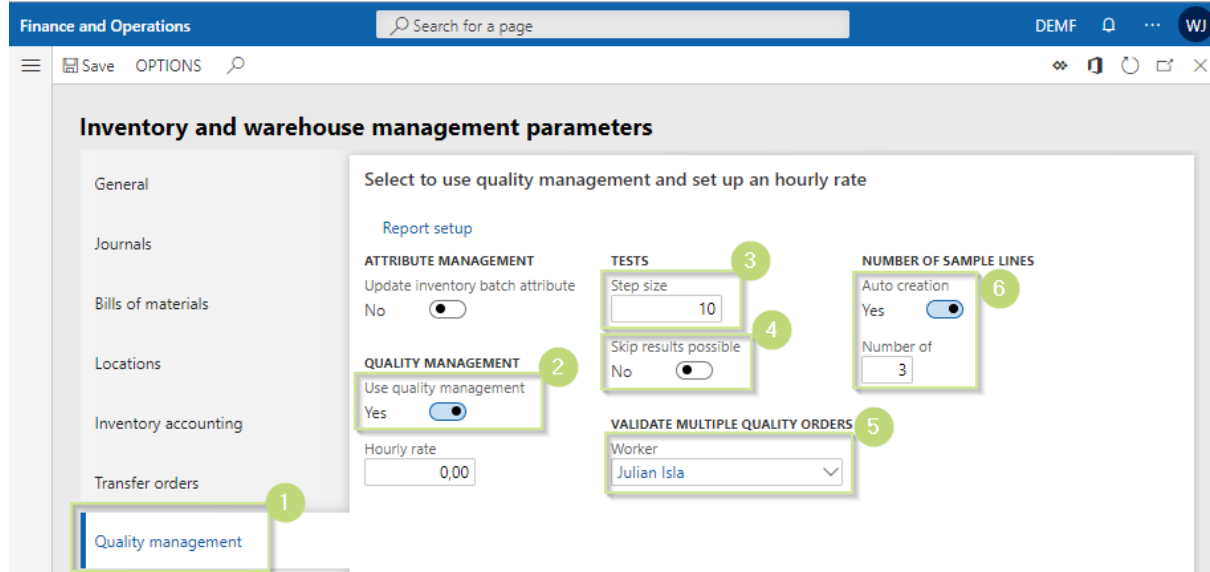


Figure 1 - Inventory and warehouse management parameters

1. Select the quality management tab-page
2. Activate quality management function
3. Define the default step size between two test group positions (internal sort order for testss, recommended 10)
4. Set the checkbox Skip results possible to allow the user to skip capturing results in the sample capturing.
5. If necessary, define a default worker for validating multiple Quality orders
6. Create a default number of Samples when creating new Quality orders

3.2 Setup number sequences

Quality management > Setup > Inventory and warehouse management parameters

Number sequences for Tests, Test groups, Samples and Tooltip-templates shell be configured.

3.3 Setup default test area

Quality management > Setup > Administration-> Create default test area

Set a test area as default for existing and new Test groups.

Create default test area ?

Parameters ^

Description	Test area
HQ Labor 1	Labor 1

Figure 2 - Create default test area

4 Master data

4.1 Tolerance ranges

Quality management > Setup > Quality control > Tolerance ranges

Tolerance ranges can be assigned to each test which has the type **alphanumerical**. Tolerance ranges defines specific ranges which are used to validate and qualify **samples**. There are two ranges with a visualized positive outcome (green and yellow colored) and two with a negative (orange and red colored); entries outside of the range won't be captured to avoid mis entries. Also, there are two different comparative operators (<=, >= or <, >) configurable in the **test group**, available to define the specific limits.

The screenshot shows the 'Tolerance Ranges' configuration in the YES Quality Manager. The interface includes a navigation menu on the left with 'NaCl' selected. The main content area is divided into several sections:

- OVERVIEW:** Shows the tolerance range name 'NaCl' (2) and the unit 'pct' (3).
- CREATED:** Shows the creator 'jwi' and the creation date '30.04.2019 11:09:35'.
- MODIFIED:** Shows the modifier 'jwi' and the modification date '14.05.2019 07:16:37'.
- Description:** Shows 'Natrium clorid'.
- Tolerance range details (4):** A detailed view of the tolerance range with the following values:

Parameter	Value
Value range max	2,80
Upper limit	2,50
Upper control limit	2,20
Upper warning limit	2,10
Average value	2,00
Lower warning limit	1,95
Lower control limit	1,91
Lower Limit	1,83
Value range min	1,70

Figure 3 - Tolerance range

1. Create a **new** record of a **tolerance range**
2. Name of the record
3. Unit of the **tolerance range**
4. Enter the different **ranges**, the **upper** and the **lower limits** defines the range of the applicable values.

Tip: Not all limits need to be configured, the value 0, or the same than the value before, means this limit is skipped.

4.2 Tooltip templates

Quality management > Setup > Quality control > Tooltip templates

Tooltip templates can be set up to provide the user additional information on how to proceed the tests. Every standard functionality is available in the form, such as create a **new**, **delete** or **edit** a record and set up **translations**.

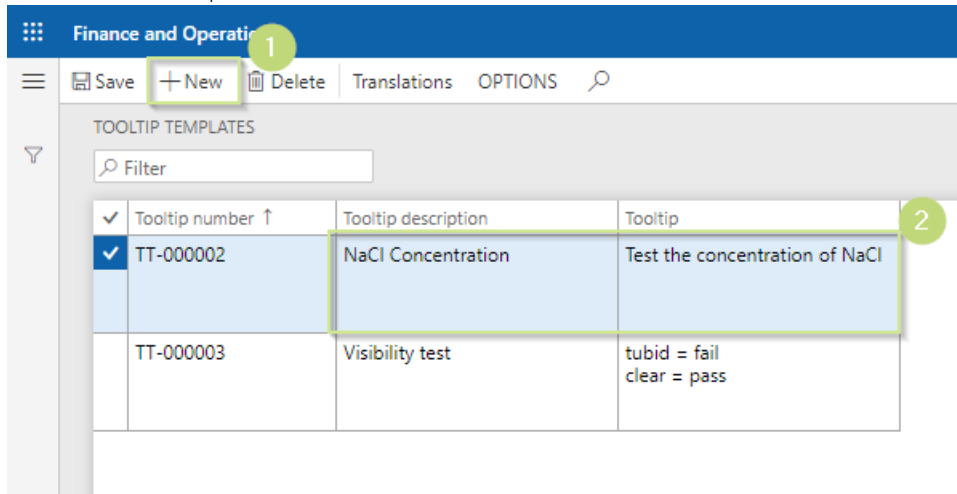


Figure 4 - Tooltip template

1. Create a new Tooltip template record
2. Insert a description and the displayed content for the new record

4.3 Test instruments

Quality management > Setup > Quality control > Test instruments

The test instruments form was extended by further information, namely **created by**, **created date and time**, **modified by** and **modified date and time**. Also, test instruments can be planned as a resource e.g. in route groups and the **Translations** functionality has been added.

4.4 Item sampling

Quality management > Setup > Quality control > Item sampling

1. In the **item sampling** form, it is necessary to choose the **quantity specification: Samples** in order to use **sample capturing**.
2. By using the option **batch checking**, existing **quality orders** with the same **batch** and **test groups** will be consolidated.

Tip: To use this feature **per updated quantity** and the tracking dimension **batch number** needs to be activated as well.

Figure 5 - Item sampling

4.5 Abbreviation list

Quality management > Setup > Quality control > Abbreviation list

Abbreviation lists can be set up to shortcut a specific string in the **sample capturing**. The abbreviation is only valid for **tests** of the type **alphanumeric**. Furthermore, the form has been extended by the **translations** and **options** functionality.

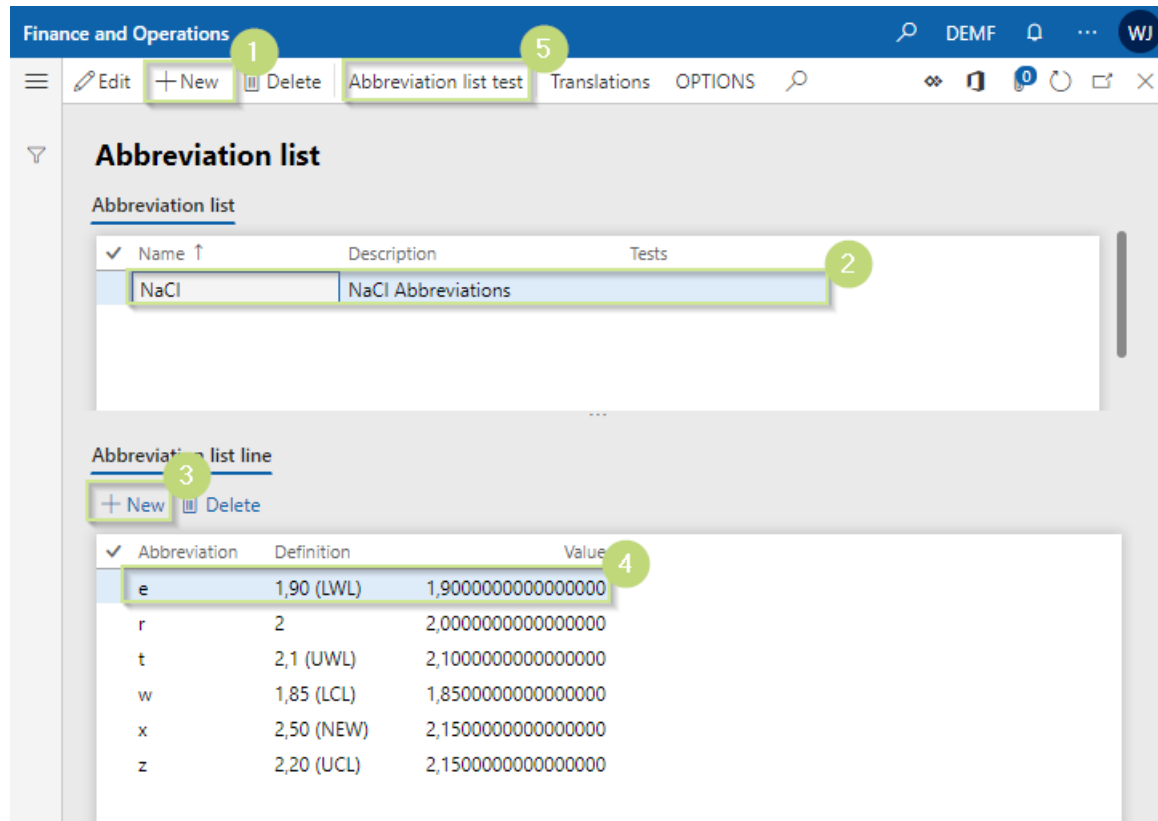


Figure 6 - Abbreviation list

1. Create a new **abbreviation** list record
2. Define a **name**, **description** and a related **test** (optional)
3. Insert **abbreviation** lines
4. **Abbreviation** defines the shortcut, definition the **description** (displayed in the **sample capturing position**) and **value** the outcome of the value
5. Where appropriate: test the **abbreviation** list

4.6 Test area

Quality management > Setup > Quality control > Test area

Test areas are mandatory for every **test group** line.

In the form records can be edited, deleted or created. Furthermore, the form was extended by the **translations** and **options** functionality.

4.7 Tests

Quality management > Setup > Tests

Beyond the standard functionality of the **test** the user can define a new type called **alphanumeric** and apply a **tolerance range** and a **tooltip template**. Furthermore, the form has been extended by the information of **created by**, **created date and time**, **modified by**, **modified date and time** and the **translations** functionality.

Test	Short description	Description	Type	Test instrument	Unit	Tolerance range	Tooltip templates	Created by	Created date and time
TSPEC-000001	NaCl	NaCl concentration	Alphanumeric	Dip stick + Analyzer	pct	NaCl	TT-000002	jwi	30.04.2019 11:32:13

Figure 7 - Tests

4.8 Test groups

Quality management > Setup > Test group

The **test group** was extended by the information of **created date and time**, **modified by**, **modified date and time**, the **Translations** functionality and the functions described step by step as follows:

4.8.1 Test group header - Overview

Test group	Acceptable quality	Item sampling	Destructive test	Created by	Created date and time	Modified by	Modified date and time
TS-000006	80,00	Sampling	<input type="checkbox"/>	jwi	03.06.2019 12:21:07	jwi	03.06.2019 12:21:07

Sequence nu...	Test	Short descrip...	Effective	Expiration	Test area	Test value determination	Created by	Created date and time
10	TSPEC-000002	tubidity	05.06.2019 07:57:01	Never	Labor 1	Manual	jwi	03.06.2019 12:22:30
20	TSPEC-000001	NaCl	05.06.2019 07:57:04	Never	Labor 1	Average	jwi	03.06.2019 12:22:46

Figure 8 - Test group header - Overview

1. Add a new test group
2. Insert all information needed and an **item sampling** of the type **samples**
3. Add new lines for every **test**
4. Fill the information of the **test area** and the **test determination**
5. Optional set an **effective** and **expiration** date

4.8.2 Test group header – General

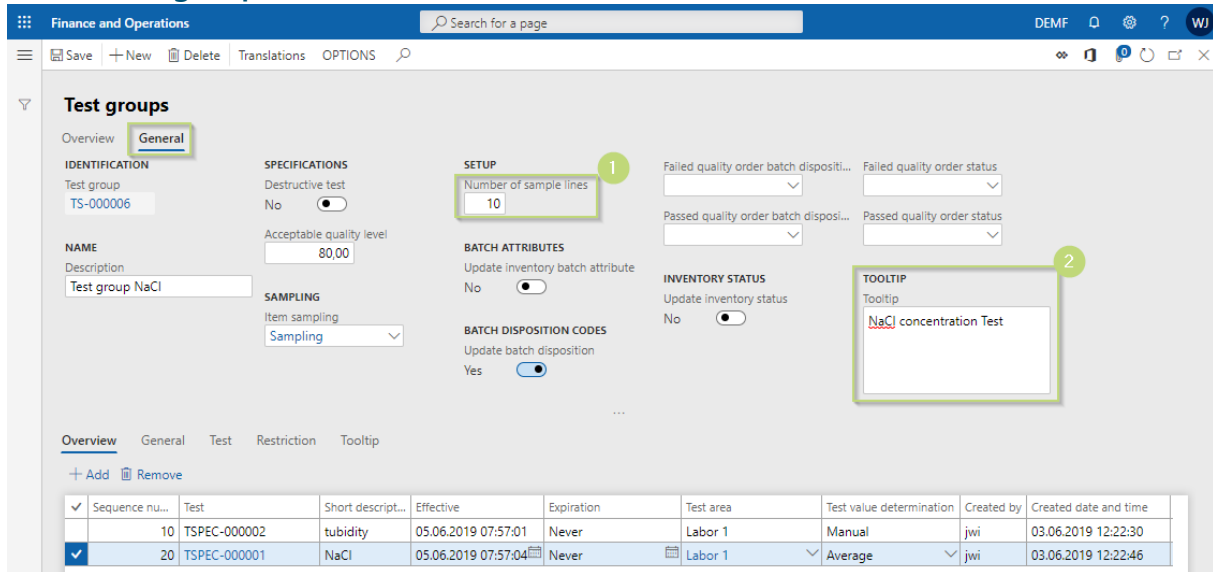


Figure 9 - Test group header - General

1. Define a default **number of sample lines**
2. Define a **tooltip** for the **test group** header

4.8.3 Test group line – General

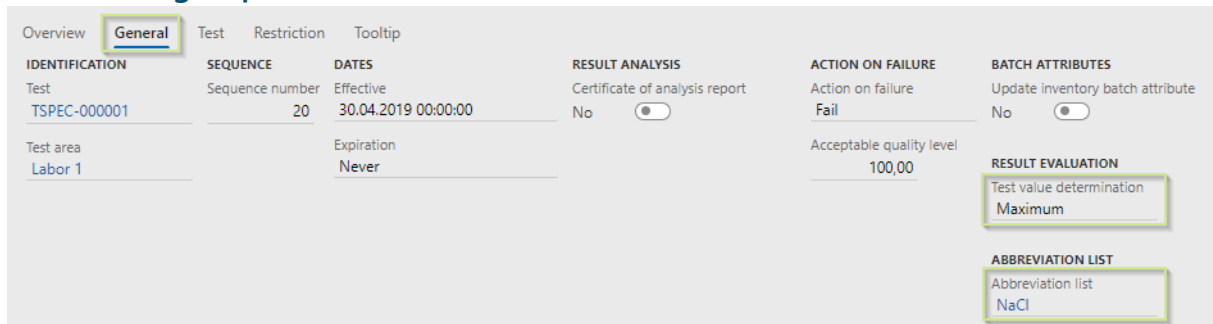


Figure 10 - Test group line - General

1. **Test value determination**-> When consolidating the result of the samples, the outcome can be determined by:
 - a. **Average** of all samples
 - b. **Minimum** of all samples
 - c. **Maximum** of all samples
 - d. **Manual set value**

Tip: Set **Manual** for a **Test** type Option
2. **Apply** an **Abbreviation list** that fits for the specific test

4.8.4 Test group line – Test

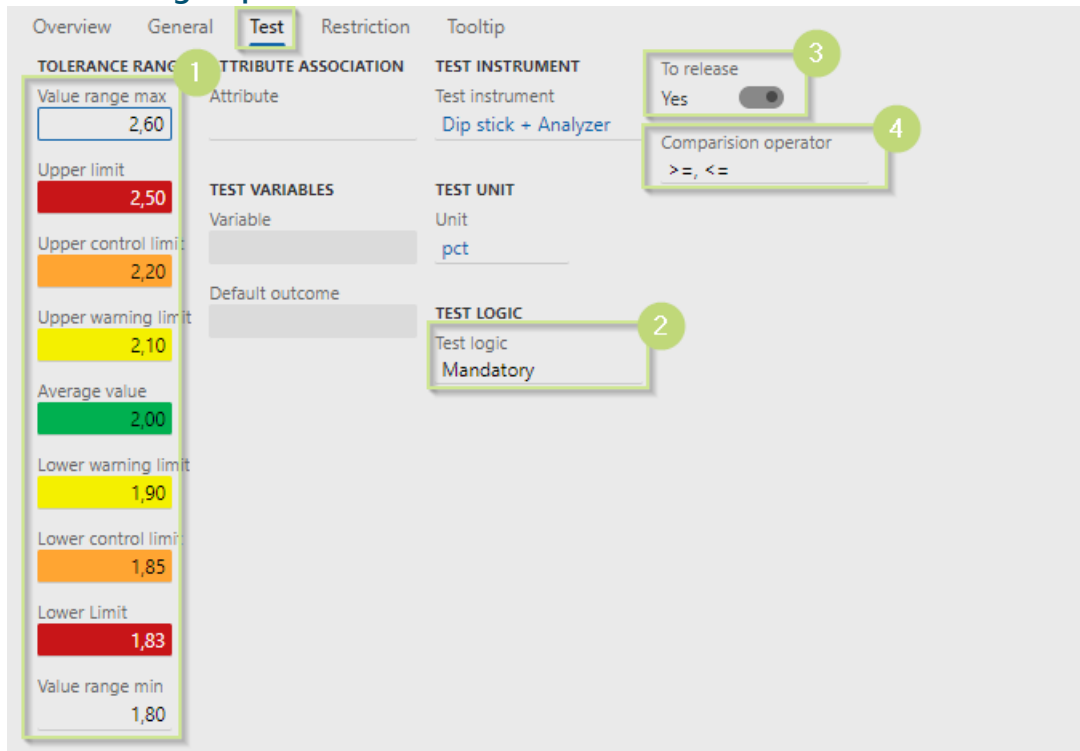


Figure 11 - Test group line – Test

1. **Tolerance ranges** -> Customize the applied **tolerance ranges** if necessary
2. **Test logic** -> Define the related **test** as Mandatory or Optional
3. **To release** -> Set this to **no** if this test is not relevant for the validation
4. **Comparison operators**
 - a. >=, <= include the limit set
 - b. >< exclude the limit set

4.8.5 Test group line – Restriction

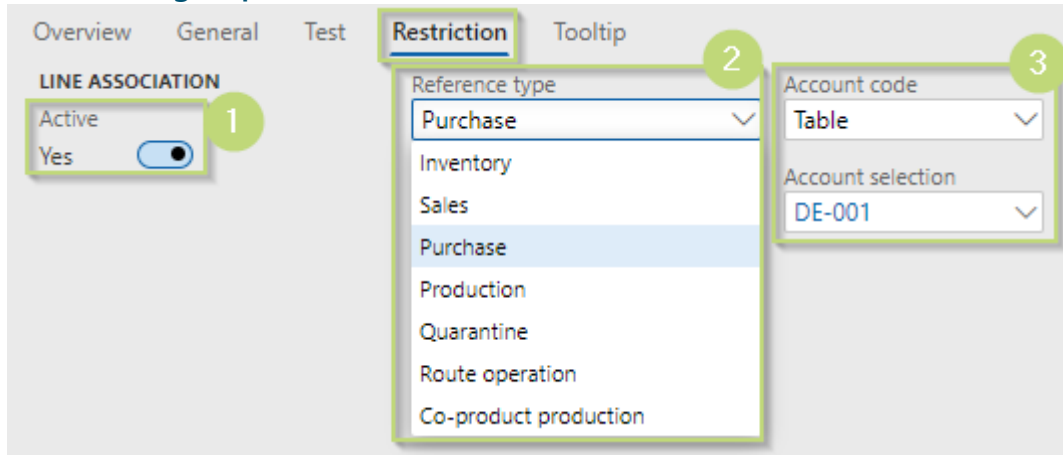


Figure 12 - Test group line – Restriction

1. **Active** -> Activates restrictions for the related **test**
2. **Reference type** -> Different types on which the restriction is applicable
 - a. Inventory
 - b. Sales
 - c. Purchase
 - d. Production
 - e. Quarantine
 - f. Route operations
 - g. Co-product production
3. **Account code** -> Only available when the reference type Sales, Purchase or Route operation is set.
 - a. All -> All accounts of the reference type will be considered
 - b. Group -> A specific Group of the reference type will be considered
 - c. Table -> Only a specific account of the reference type will be considered

4.8.6 Test group line – Tooltip

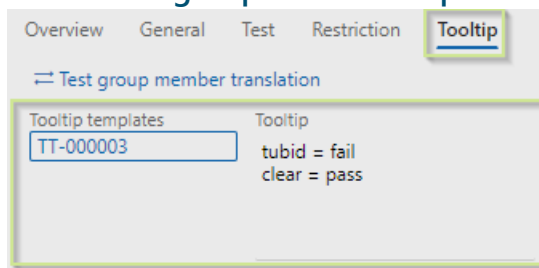


Figure 13 - Test group line - Tooltip

Apply a **tooltip template** and customize it, if it is necessary.

4.9 Quality associations

Quality management > Setup > Quality associations

In the **quality associations** module, the **test group** and the **item sampling** are combined and the trigger point when to create automatically a new **quality order** is set.

Beyond the standard functionality **warehouses** per **site** can be assigned, and a new event type **create production order** for the reference type **production** is available.

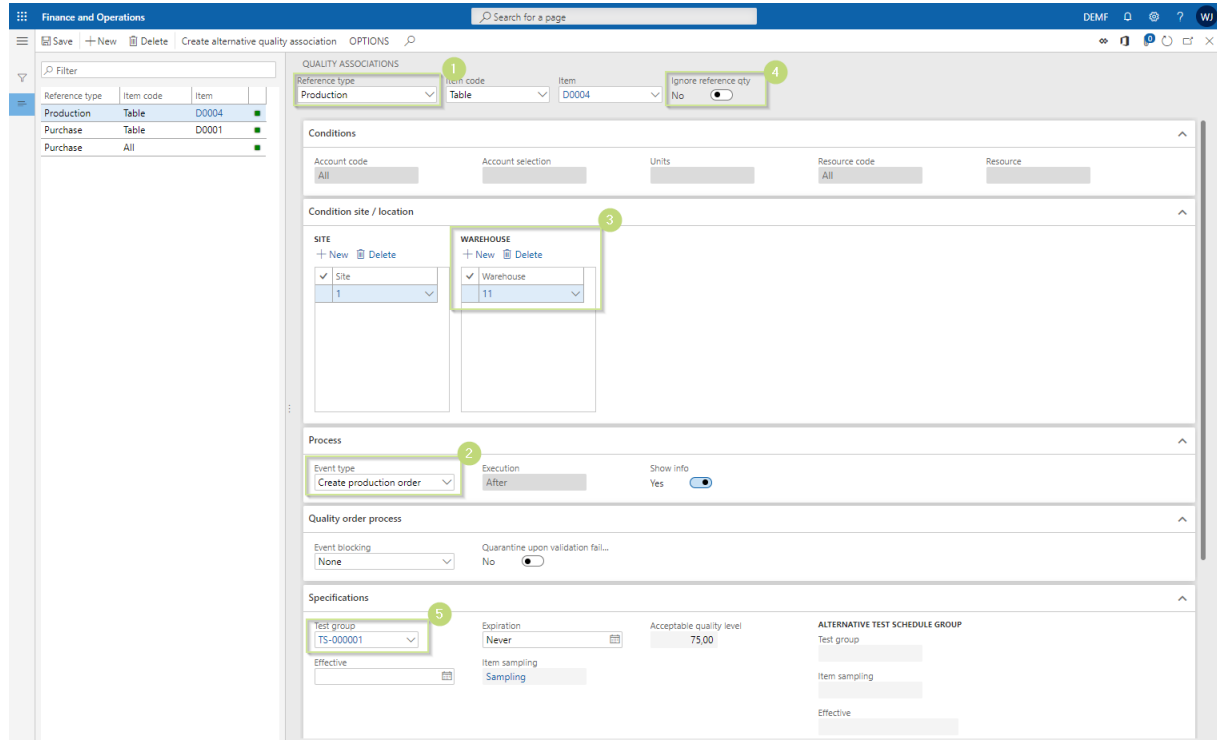


Figure 14 - Quality associations

1. Select the reference type **production**
2. Select the event type **create production order**
3. Select a **site** and a related **warehouse**
4. Set **ignore reference qty** to **yes** if it's possible that you have less quantity of samples than the specific material that is needed for manufacturing process
5. Select a **test group**

5 Functions/Features

5.1 Quality order sample journal

Quality management > Common > Quality order with sample journal

In the **quality order with sample journal** every **quality order** that has an assigned **item sampling** configured for **samples**, are displayed.

The **sample journal** is divided in three parts:

The screenshot shows the 'Sample journal' interface with three main sections:

- Quality Orders:** A table listing quality orders with columns for Quality order, Reference type, Test group, Item number, Product name, Quantity, Status, and Test. Row 000127 is selected.
- CONSOLIDATED QUALITY ORDER LINES:** A table showing test results for the selected quality order. Columns include Item number, Test group, Test area, Test, Test result sum, Result value derivation method, Test logic, and various tolerance limits. The test result for NaCl is 2.1475.
- SAMPLES:** A table listing individual samples with columns for Sample num, Sample status, Test informations, NaCl, T... humidity, T... Capture date, Capture time, Completion date, and Completion L... Each sample has a color-coded status (OK or tubid).

Figure 15 - Quality order with sample journal

1. **Quality orders** -> Displays all open Quality orders with sampling
2. **Consolidated quality order lines** -> Shows all related Tests and the result of all samples based on the **Result value derivation method** chosen in the **Test group line**.
3. **Samples** -> **Samples** of all selected Quality orders

After choosing one or more (1) **quality order(s)** the related Test(s) are displayed in the (2) **consolidated quality order lines** section. The content of the (2) **consolidated quality order lines** of one **quality order** is combined to one (3) **sample line**.

Select **new sample** to add one new sample the **capture date** and **time** will be logged. To add more than one **sample** select **create samples**, set the **number of samples** and click **ok**.

Samples are captured by typing in results in the **sample lines**, the values will be validated based on the setup of the related **tolerance range** and **test variable** of the **test**. After capturing a **sample**, the **date** and **time** will be logged in the respective **completion** columns.

5.1.1 Skip sample journal

The **sample journal** module provides also the feature of skipping quality results. People with the assigned role of **quality control manager** or **quality management manager** can skip the entry of a result when for example the **test instrument** isn't available. Skipping a result won't affect the total result.

Sample num	Sample status	Test informations	NaCl	T... turbidity	T... Capture date	Capture time	Completion date	Completion time
000127-0001	OK		1,80	clear	28.05.2019	07:35:41	28.05.2019	07:45:34
000127-0002	OK		1,85	turbid	28.05.2019	07:35:41	28.05.2019	07:45:38
000127-0003	OK		1,93	clear	28.05.2019	07:35:42	28.05.2019	07:45:43
000127-0004	OK		2,00	clear	28.05.2019	07:43:43	28.05.2019	07:45:46
000127-0005	OK		2,10	clear	28.05.2019	07:43:44	28.05.2019	07:45:48
000127-0006	OK		2,20	turbid	28.05.2019	07:43:44	28.05.2019	07:45:51
000127-0007	OK		2,50	clear	28.05.2019	07:43:44	28.05.2019	07:45:57
000127-0008	OK		2,80	clear	28.05.2019	07:43:44	28.05.2019	07:46:01
000127-0009	Open	test instrument is not available		default	28.05.2019	07:50:27		00:00:00
000127-0010	Open	test instrument is not available		Skip result	28.05.2019	07:50:51		00:00:00
000127-0011	Open			default	28.05.2019	07:50:53		00:00:00

Figure 16 - Sample skip result

1. Click left on the arrow down button of the cell
2. Select **skip result**

To undo this procedure click left on the arrow down button of the cell again and select **remove skip result**.

5.1.2 Fast input mode for sample capturing

For capturing samples in a fast way, the **fast input mode** has been developed. Samples can be captured without having any system alerts or warning. After capturing a value, the result gets validated by the system. The validation is based on the setup of the related **test**. If an entry is not valid, the result will be *BLANK*.

5.2 Create alternative quality association

Quality management > Setup > Quality associations

For temporary assigned **quality orders**, the feature of temporary valid **alternative test associations** was created. Another **test group** and a new **item sampling** can be allocated to the **quality association** for a specific period as follows:

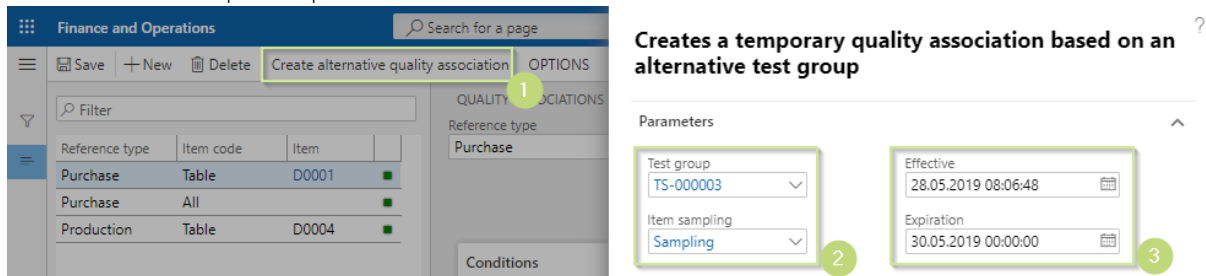


Figure 17 - Create alternative quality association

1. Create alternative quality association
2. Select an existing **test group** and **item sampling**.
3. Select a period of validity and press OK

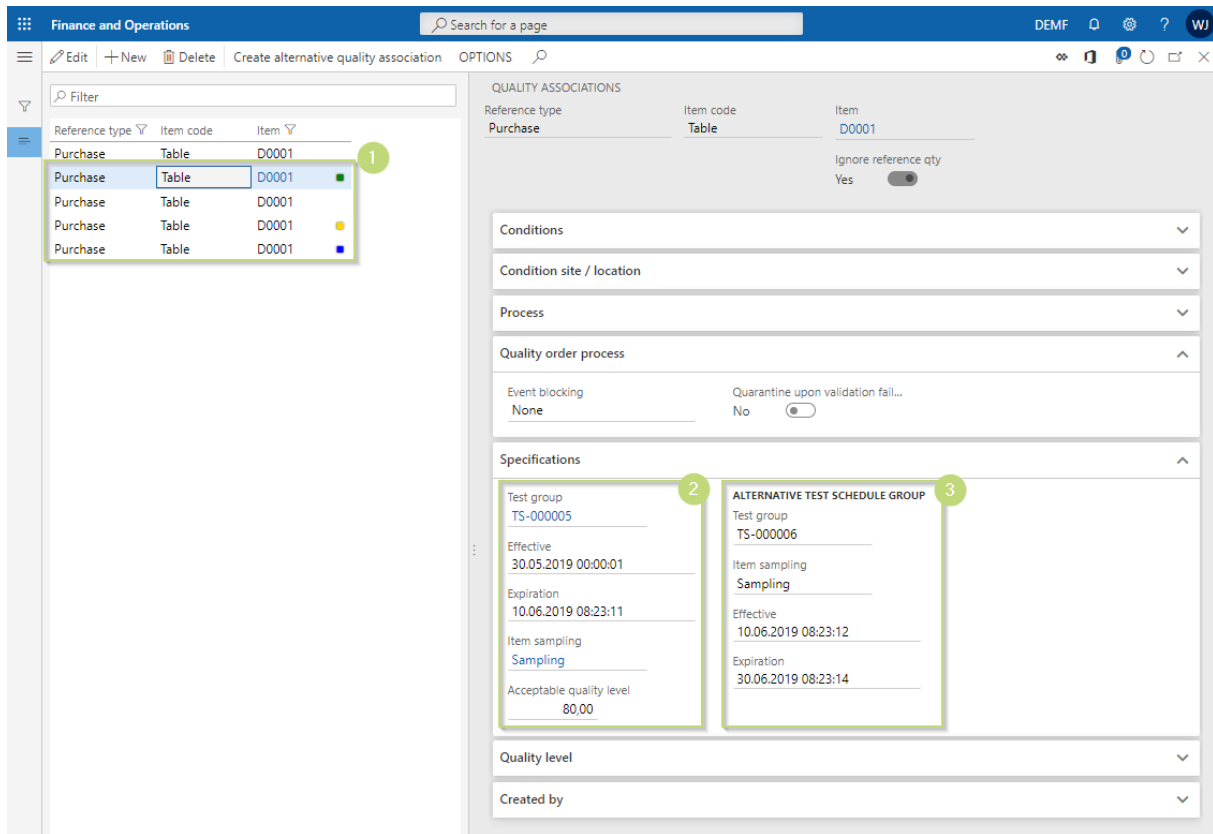


Figure 18 - Create alternative quality association outcome

1. The status of the quality associations is displayed per Item and reference type. They are marked with different colors:
 - Green: Current assigned Quality association without an expiring date
 - No color: Expired quality association
 - Yellow: In the future assigned Quality association
 - Blue: Temporally assigned Quality association
2. Information of the selected (expired) quality association
3. Information of the temporary assigned alternative test group

5.3 Validate multiple quality orders

Quality management > Common > Quality order with sample journal

Quality management > Common > Quality order

Outside of the standard functionality multiple **quality orders** can be validated in the **quality order** and **quality order with sample journal** form. If one of the **selected** quality orders will result in a failed status, the system throws out a message: *"Expected order status: Fail."* and the validation will be canceled, if not the orders will be validated and gets the status *Pass*.

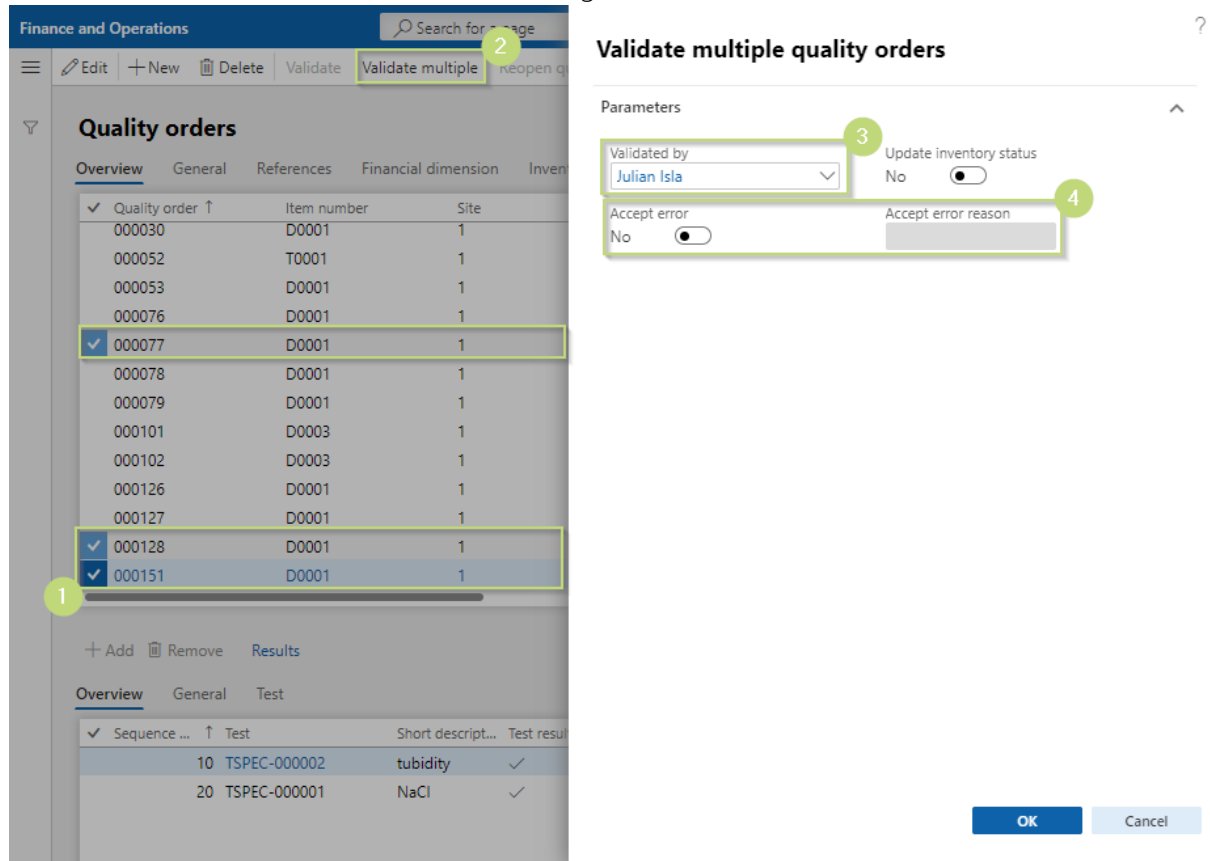


Figure 19 - Validate multiple quality orders – Quality order

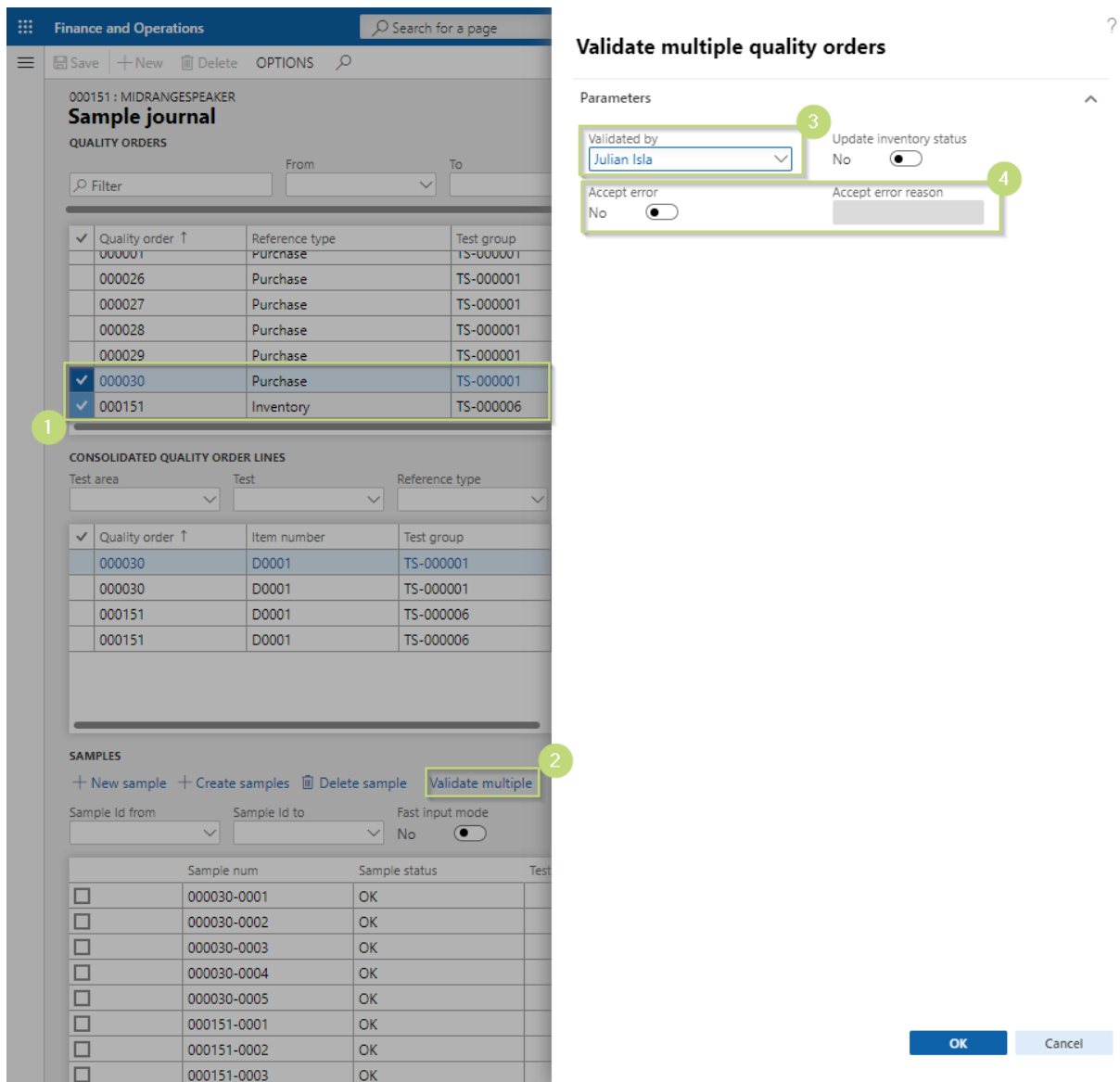


Figure 20 - Validate multiple quality orders – Quality order with sample journal

1. Select multiple **quality orders**
2. Click **validate multiple**
3. Select the person who validates the **quality order**
4. **Accept** or not **accept** a non-valid **quality order** based on the **test group**. If **accept error** is set to **yes**, a **reason** needs to be enunciated.

6 Processes

6.1 Create tests

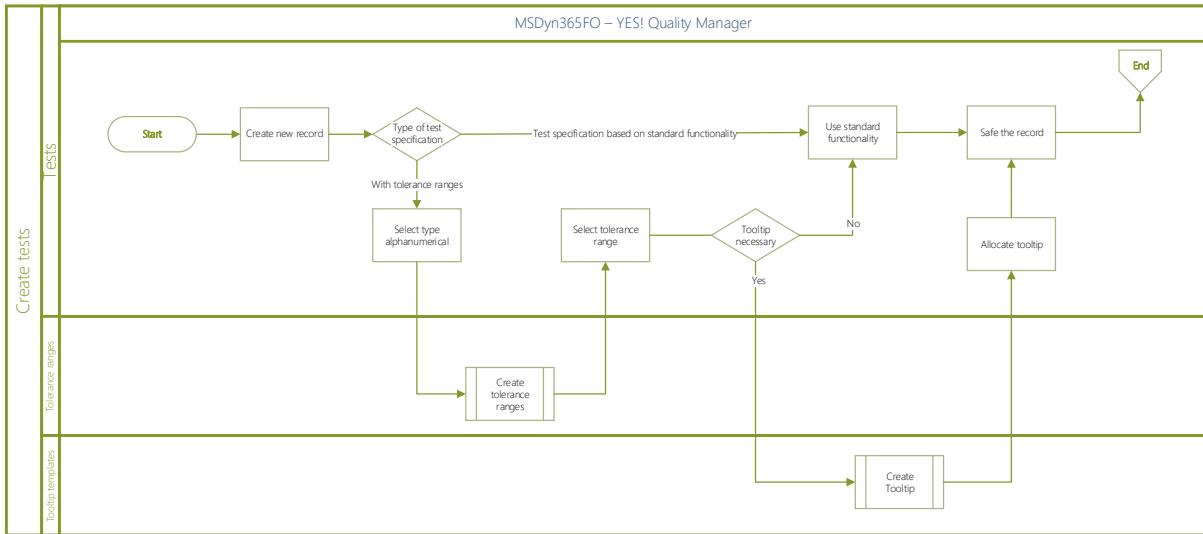


Figure 21 - Process - Create test

6.2 Create test groups

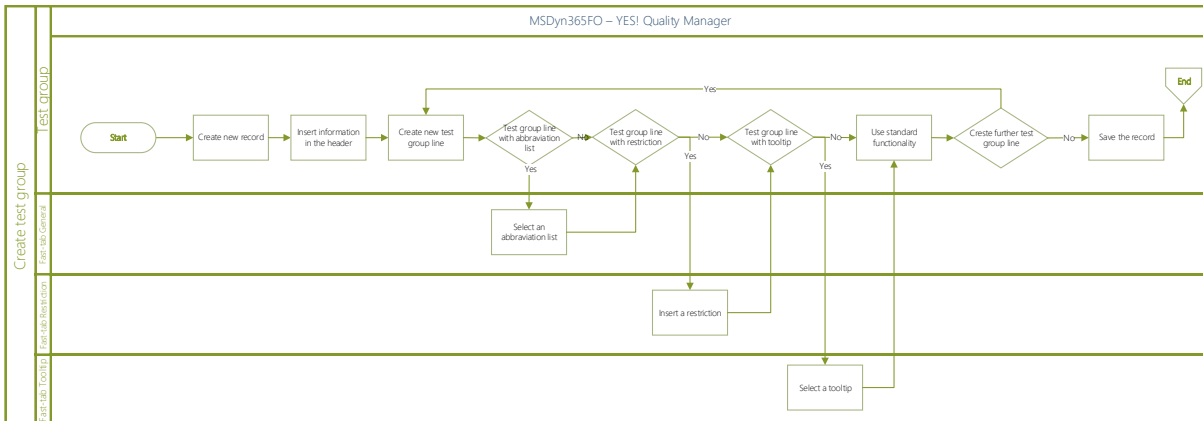


Figure 22 - Process – Create test groups

6.3 Sample capturing

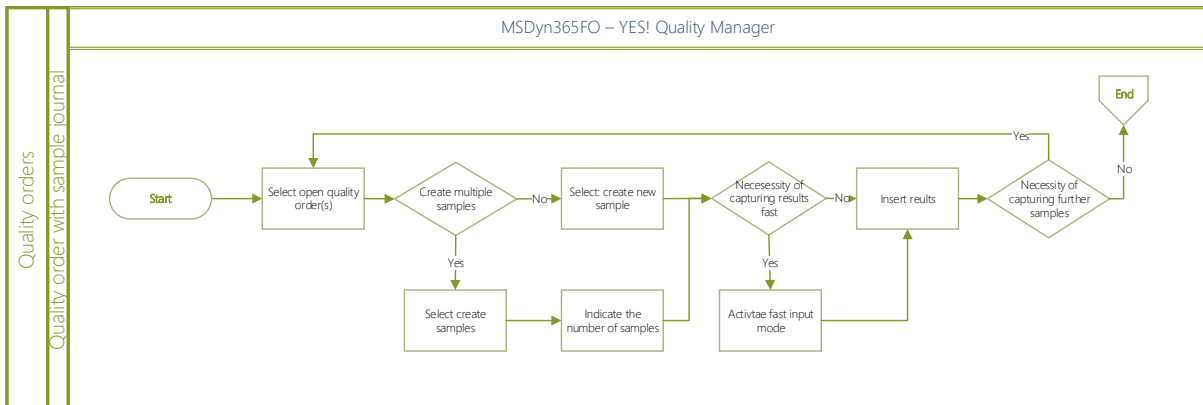


Figure 23 - Process - Sample capturing

7 Power BI

The YES! Quality Manager has not any BI reporting implemented. If it is necessary, it can be developed as a tailor-made solution for the customer.

8 Disclaimer

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