

Release Notes for Data Quality Studio 10.0.27.3

Release Notes

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1. Introduction

1.1 Purpose

This document highlights new features, bug fixes and improvements in this release of Data Quality Studio (DQS) 10.0.18.2 from To-Increase B.V. This release is compatible with the version of Microsoft Dynamics 365 for Finance and Operations, 10.0.25 and higher.

1.2 Audience

This document is intended for new users of Data Quality Studio partners and customers. Some knowledge of Dynamics 365 for Finance and Operations is assumed.

1.3 Deliverables

Deliverable	Description
Solution package	Data Quality Studio is delivered as a Microsoft Dynamics Lifecycle Services (LCS) solution package.
Software deployable package	Data Quality Studio 10.0.27.3
Release notes	This document is provided with the Data Quality Studio product deliverables.
Implementation methodology	The solution package contains a <i>Data Quality Studio implementation methodology</i> that provides detailed step-by-step instructions on how to install, learn, and implement Data Quality Studio.
Getting started BPM library	The solution package includes a <i>Getting started with the Data Quality Studio</i> BPM library. This library contains several task guides that showcase some of the key capabilities of Data Quality Studio.
Documentation BPM library	The solution package includes a <i>Data Quality Studio documentation</i> BPM library. This library contains a comprehensive set of task guides that document how to use <i>Data Quality Studio</i> for your BPM activities. This documentation is provided in U.S. English only.
Authentication assets	A To-Increase security certificate is provided to allow trusted installation of the provided model files and ISV license files.

2. What's New

2.1 Current release

2.1.1 Web service improvement for action rules

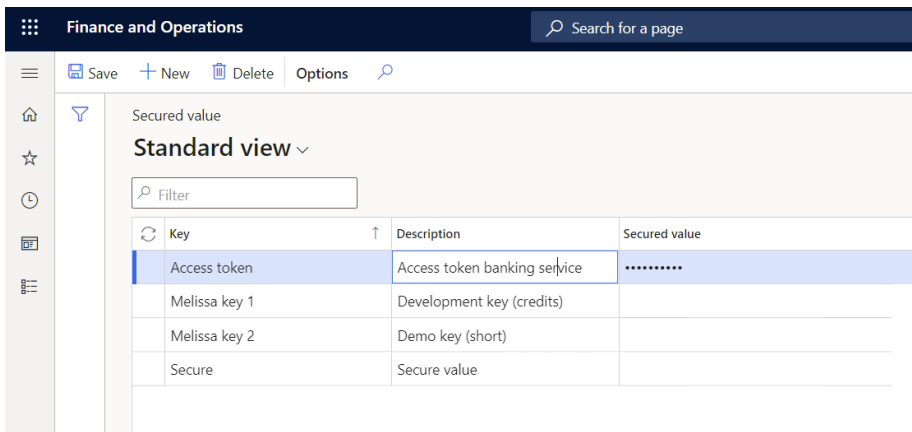
We added the option to setup multiple return values for a single web service call. When using address validation services, the service can return corrected data in individual columns. E.g. when sending an address, depending on the external service, it can correct the street name, complete the postal code for that address and return the longitude and latitude. One return value can be re-used for multiple database fields.

You can link the response fields with the database target fields in the **Web service response actions** part.

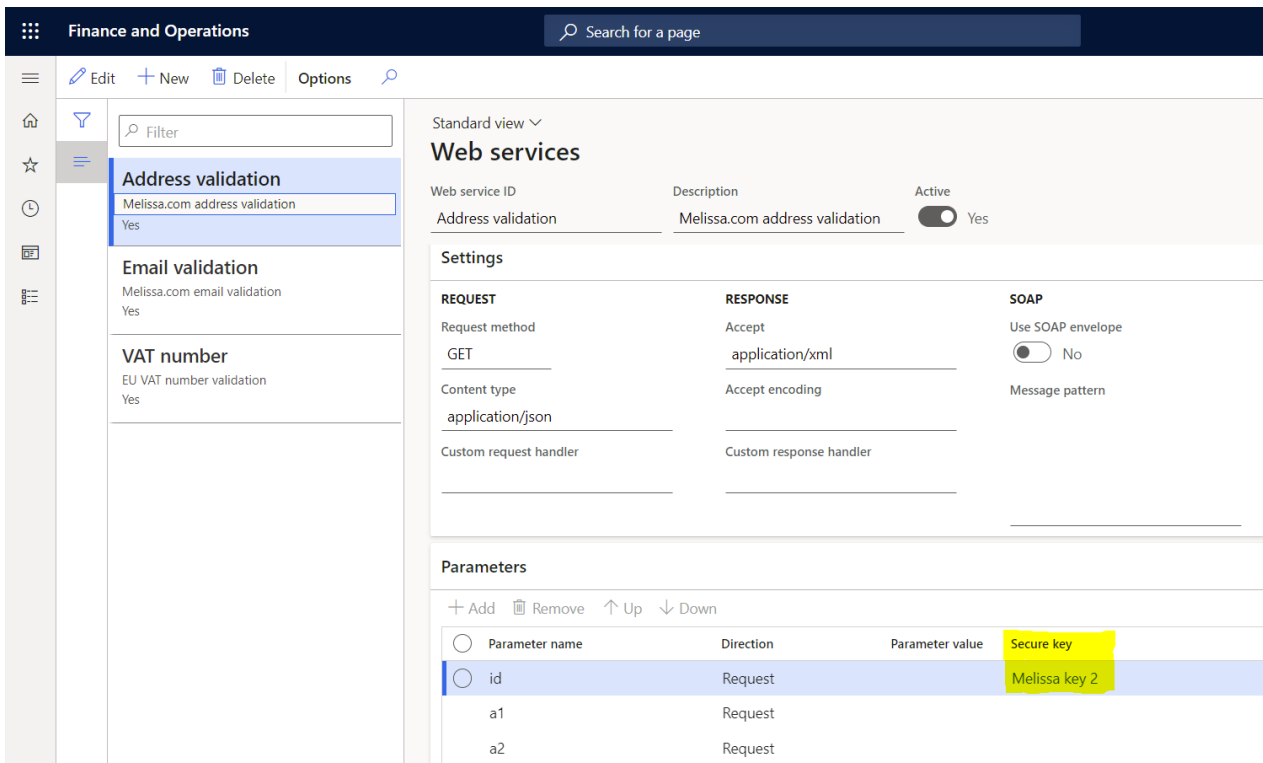
The screenshot shows the Microsoft Dynamics 365 interface for configuring a data quality policy. The top navigation bar includes 'Finance and Operations', a search bar, and 'USMF'. The left sidebar contains navigation icons. The main area is titled 'Data quality policies | AddrContDetails Address and contact details | My view'. Below this, there is a table with columns: Policy ID, Policy name, Version status, Version number, and Version name. The table shows one row: AddrContDetails, Address and contact details, Active, 3, 1.0.3. Below the table, there are tabs for 'Validation rules', 'Duplicate check rules', 'Action rules', 'Organization assignment', and 'Version details'. The 'Action rules' tab is active. Below the tabs, there is a table with columns: Table, Event, Action type, and Source field. The table shows one row: Addresses, Source field modified, Web service, Street. To the right of this table, there are tabs for 'Properties' and 'Conditions'. The 'Properties' tab is active, showing a table with columns: AddressLine1, Response, AddressLine2, Response. Below this, there is a section titled 'WEB SERVICE RESPONSE ACTIONS' with a table with columns: Parameter name, Target field. The table shows one row: AddressLine1, Street. Other rows in the table include: Latitude, Latitude; Locality, City; Longitude, Longitude; and PostalCode, ZIP/postal code.

2.1.2 Secured values

We have enhanced the web service functionality where it is now possible to store license key or other sensitive data in a form **Secured values**. The secured value can be used as fixed parameter value for web services.



The values can be linked to web services on the parameters tab page.



2.2 10.0.18.2

Data Quality Studio (DQS) is a new solution from To-Increase that helps companies improve data quality and makes data governance simple in their Dynamics 365 environment. With quality data in the system the reliability of the data that is shown increases, which reduces the chances of making mistakes by users and management.

DQS is created for a functional administrator user with ease of use and flexibility in mind. The data quality administrator creates and manages the functionalities within DQS that can be activated and deactivated at any time. Developers can also call functions to have the same policies executed for specific scenarios. The functionalities in DQS is shared but can be restricted to legal entities directly or part of an organizational hierarchy.

There are various features in DQS for different kind or rules. These rules in DQS do the following to make ensure good data quality:

- Validation rule: Checks if the data meets the defined entered criteria.
- Duplicate check rule: Checks if the data does not have a duplicate value in the defined table.
- Action rule: Uses an action to set a value or to update data in a targeted field.

2.2.1 Validation rules

Validation rules is a functionality in DQS that uses defined criteria (rules) to ensure that data is entered correct in the system. These rules are triggered when you enter data on forms. If the rule is triggered a warning or error message can appear. The messages for users can be set up in the rule; also provided in multiple languages to support international implementations. Within the validation rule there are different types, that you can use to validate the data, these are:

- Mandatory: It is mandatory to enter a value in the field/record.
- Blank: Validates if the field/record is left blank.
- Range expressions: A validation is done if value is within the defined range.
- Data pattern: A validation is done if a field/record matches a predefined data pattern.
- Web service: A validation is done if a value matches in another internal or external source, by making use of a web service.
- Custom: A validation is done by making use of a custom created class with x++ coding.

2.2.2 Duplicate check rule

The duplicate check rule is a functionality that is used to check if there is no duplicate value in the defined table. A few examples where the duplicate check rule is useful to use are:

- Product name
- Social security number
- External item ID per customer or vendor

The duplicate check helps you prevent duplicate values, which can help prevent confusion for users.

2.2.3 Action rule

Action rules is a functionality that is used to populate values into a target field. This will support in quicker data entry or ensure correct values are used in certain fields. When creating a new record, enter a value in a field or before save the record, the application can enrich data. There are several action types that can be used:

- Fixed Value: Populates a predefine value in the selected target field.
- Data query: Make use of a dynamics query or inquiry to find a value to populate the selected target field.
- Transformation lists: Make use of a transformation list to find a value to populate the target field.
- Number sequence: Make use of a number sequence to populate the target field.
- Web service: Makes use of a web service to get a value from another internal or external source to populate the target field.
- Custom: Makes use of a custom action class, to populate the target field.

2.2.4 Organization assignment

Initially a data quality policy will be executed in all legal entities. A DQS policy can be assigned to a single legal entity or multiple legal entities. The policy can also be assigned to organizational hierarchies, which can also be set up in DQS, via the Data Quality hierarchy purposes. When organizations are assigned, the rules will be effective only for the legal entities as per setup.

2.2.5 Data patterns

Data patterns are used in Validation rules functionality. A data pattern is a criterion that is set up that a value should meet. A few examples of these criteria are the following:

- That a value must start with a capital letter.
- That a value must have a certain number of characters.
- That a value must meet the criteria of an email address.
- That value must meet the criteria for a zip-code of defined region.

The data patterns are setup with regular expressions which is an open source standard for text patterns. There is a lot of information and examples on the internet, e.g.:

https://en.wikipedia.org/wiki/Regular_expression

<https://www.regular-expressions.info/>

<https://regexr.com>

In the Data pattern screen a test can also be carried out to see if the created data pattern meets the desired outcome.

Finance and Operations Search for a page USMF

Save + New Delete Changes timeline Translations Options

Filter

- 10-100
Values between 10 and 100
- CharMax4
Maximum 4 characters
- CharMax7
Maximum 7 characters
- CharMin2**
Minimum 2 characters
- Date DD-MM-YYYY
Date pattern Date DD-MM-YYYY
- Email address
Email address pattern verification
- Empty
Empty value
- NL IBAN
Netherlands IBAN bank verification
- NL PostalCode
Netherlands Postal code
- NotAllowed
Not allowed values (! @ #)
- Phone
Phone number verification
- StartCapital

Data patterns | My view

Pattern ID
CharMin2

Description

Data pattern

Pattern
^[w]{2}

Message

Validation message
Please provide a value with a minimum of 2 characters

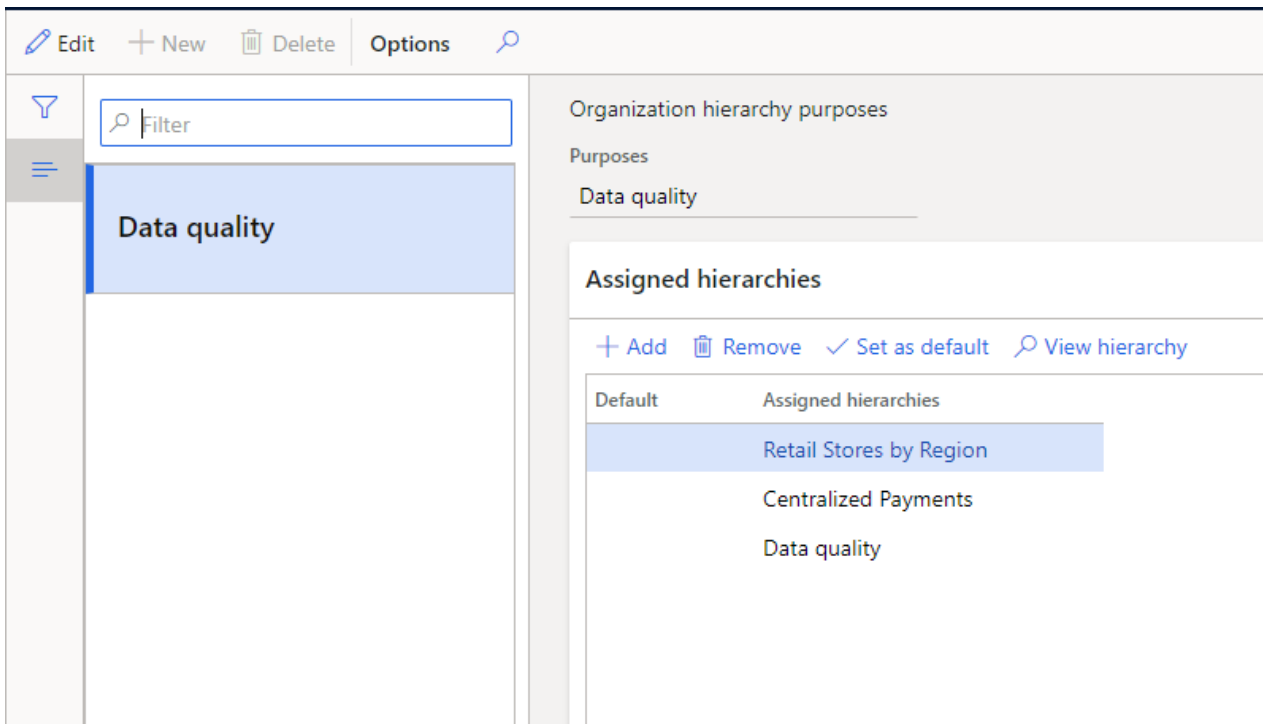
Test scenarios

+ New Delete Test

	Te...	Test value	Expected	Actual
<input checked="" type="radio"/>	✓	1	Fail	Fail
<input type="radio"/>	✓	22	Pass	Pass
<input type="radio"/>	✓	333	Pass	Pass
<input type="radio"/>	✓	ABC	Pass	Pass
<input type="radio"/>	✓	AW	Pass	Pass

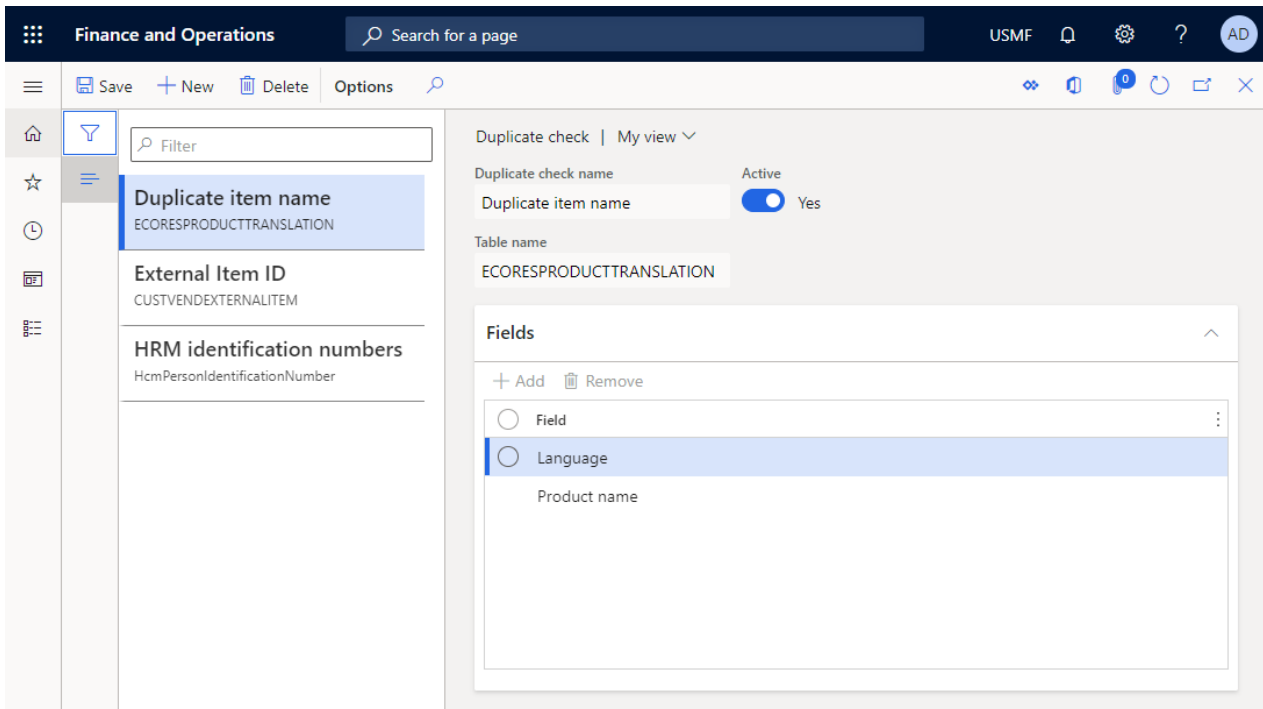
2.2.6 Data Quality organization hierarchy purposes

An organization hierarchy can be set up, which can be used in Organizational assignment in DQS. Various organization types can be used for the hierarchy; only the legal entities are functionally used to determine in what legal entity the rules will be effective.



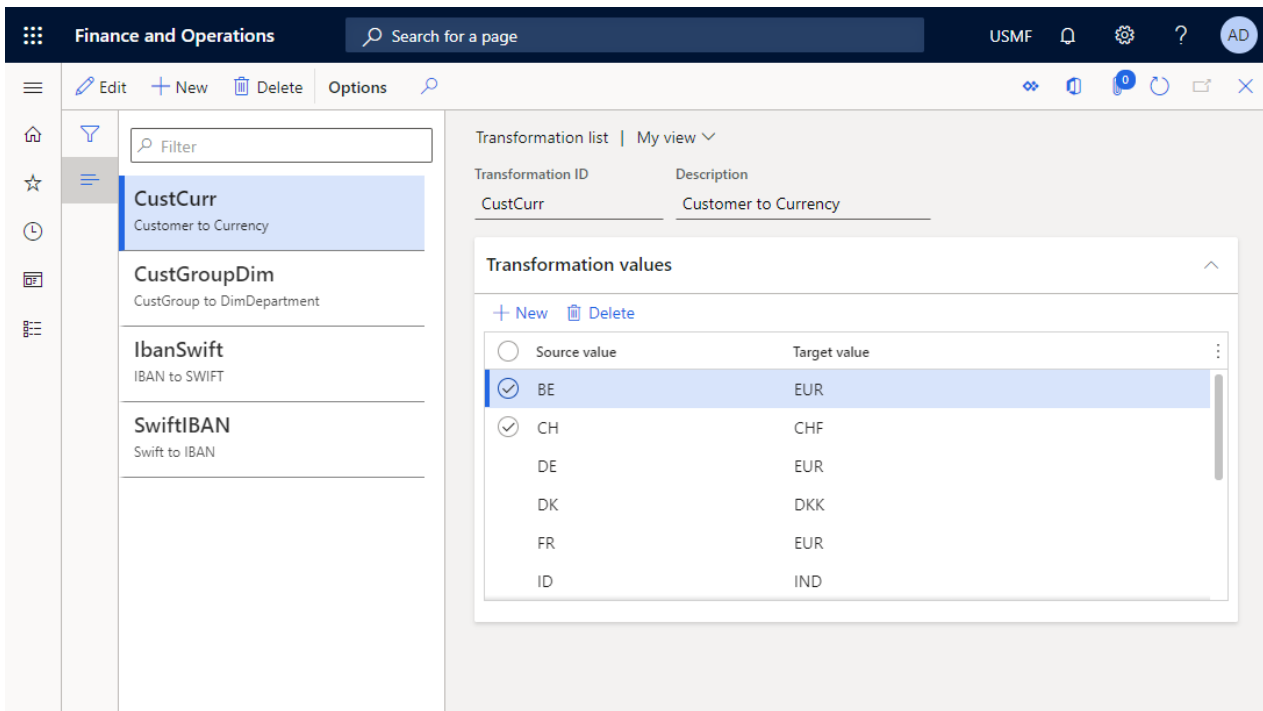
2.2.7 Duplicate checks

Duplicate checks can be set up to check if a value already exists in a table. The duplicate checks can be set up to check if a single value already exists in a table or that a combination of values need to be first met in order for the duplicate check value to be triggered.



2.2.8 Transformation list

In the transformation list which is used in validation rule can be set up with a source value and a target value. The source value is the value that triggers the output for the target field. An example of a transformation list is currency. If the area code is NL (the Netherlands) the output in the currency field will be Euro.



2.2.9 Web services

In the web services setup page, a set up for the web service that will be used will be made. The following can be set up in this page:

- Web service URL with a related certificate
- Request method (Get or Post)
- Response
- SOAP (Simple Object Access Protocol)
- Parameters

Finance and Operations USMF

Search for a page

Save + New Delete Options

Web services | Standard view

Web service ID: VAT number Description: EU VAT number validation Active: No

General

Web service URL: Certificate:

Settings

REQUEST

Request method:

Content type:

Custom request handler:

RESPONSE

Accept:

Accept encoding:

Custom response handler:

SOAP

Use SOAP envelope: Yes

Message pattern:

```
<soapenv:Envelope
xmlns:soapenv="http://schem
as.xmlsoap.org/soap/envelope
/"
xmlns:urn="urn:ec.europa.eut
```

Parameters

+ Add Remove Up Down

<input type="checkbox"/>	<input type="checkbox"/>	Parameter name	Direction	Parameter value	Path expression
<input checked="" type="checkbox"/>	<input type="checkbox"/>	urn:countryCode	Request		/*[name()='soapenv:Envelope']/*[name()='soapenv:Envelope']
<input type="checkbox"/>	<input type="checkbox"/>	urn:vatNumber	Request		/*[name()='soapenv:Envelope']/*[name()='soapenv:Envelope']
<input type="checkbox"/>	<input type="checkbox"/>	valid	Response		/*[name()='soap:Envelope']/*[name()='soap:Body']/*

3. Bug Fixes

3.1 Current release

ID	Title
143247	Internal Duplicate check rule not always executed when updating records. The duplicate check logic has been enhanced to cover both inserts and updates in a correct manner.
127590	CS00177048 Issue in new release product OK button after installing DQS. A workaround was to enable DQS. Due to an incomplete condition, the OK button on the product creation dialog was not working. This has been fixed.

4. Known Issues and limitations

In this section the known issues and limitations that are currently in DQS will be highlighted. These issues or limitations can also be due to standard Dynamics 365 limitations. Known issues and limitations:

- Released product creation dialog form: Today, only validation and duplicate check rules are supported. Action rules will be implemented in a future release.
- Setting up a default or financial dimension field as modified source field of an action rule is not working and not supported in the current release.
- Providing a value for enum fields as target in action rules is not accepting the label; in the current release the integer value should be provided. E.g. 'NoYes' will need a value as 0 for 'No' and 1 for 'Yes'. This will be enhanced a next release.

In general, the Data Quality Studio solution can work for any regular table and field, regardless if it is part of the standard, an ISV solution, customization or configured custom field. The events will be executed on forms with a data source. There are various places in the application where forms don't have a data source or where x++ coding is used to insert or update records. One example is the product creation dialog form in the standard application. On this form, there is no data source used at all; only at time of closing the dialog, the tables will be populated and inserted in the database. We have extended the logic, so it can check for valid data entry. We have also done this in several other places where we found a gap during the development and testing. If there is any use case where the rules are not executed as intended, please contact us, so we can verify if and how this should be supported.

If you are using action rules, in certain cases, the values updated in the target fields can be overwritten by standard business logic. Test the scenarios carefully before applying it in your production environment.

Together with the solution, we provide tutorials as separate model for custom extensions on validation rules. The tutorials are provided 'as-is' and not supported as part of the main application. The tutorials are for learning purposes. Before using them in a production environment, you must verify if they will work as per your expectations.

Microsoft is continuously adding new features in the application directly and via Feature Management. Sometimes these are public preview and will be made generally available in future releases, in other cases, they are already general available, and you have the choice to activate them. Currently, we are not testing compatibility with all new features or combinations. Once a feature is enabled at the customer environment and in case of any issues or questions related to new standard features and our solutions, kindly contact us via To-Increase support.