



Data Quality App - Administrator guide

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What is Data Quality App

Microsoft's Data Quality App for Dynamics 365 and Power Apps is the preferred add-on for maintaining high data quality across multiple entities, enabling businesses to make better decisions with confidence.

Data is a critical driver of revenue in today's business landscape, and having accurate, properly formatted, and duplicate-free data is key to driving customer satisfaction and increased revenue.

The Data Quality App helps organizations maintain data quality and ensure optimal system performance through its built-in duplicate detection feature, which allows users to define rules based on specific business requirements, fields, and criteria to catch potential duplicates.

The system can then merge or delete the duplicate records based on configured preferences by CRM admins.

Additionally, the Data Quality App offers Data Quality Rules & Phonetic Fields, a suite of tools designed to enhance the quality of data within the system.

Benefits

The Data Quality App for Microsoft Dynamics 365 CRM offers many benefits for users looking to clean up and maintain their CRM data. This app includes a Duplicate Detection feature that constantly works in real-time to prevent the creation of duplicate records, ensuring that your data stays accurate and up to date. This feature works on all entities within the system, making it a comprehensive solution to duplicate records.

In addition, the Data Quality App also includes Data Quality rules that allow users to create custom data quality rules on any entity. This feature helps improve the quality of data that exists on any entity within the system, providing users with more confidence in their data quality.

Another feature included in the Data Quality App is the Phonetic fields feature, which allows users to check for duplicate records based on pronunciation with an accuracy of 99%. This feature is a unique and innovative solution that can provide significant benefits to users looking to maintain high-quality data within their Dynamics 365 CRM system.

Overall, the Data Quality App is a comprehensive and reliable solution for maintaining high-quality data within Microsoft Dynamics 365 CRM. Its Duplicate Detection, Data Quality rules, and Phonetic fields features help prevent the creation of new duplicate records, improve data quality on any entity, and even prevent duplicate records based on pronunciation. As the only solution on Microsoft AppSource that offers these features within one solution, the Data Quality App is the only thing you need to have the best possible data inside Dynamics CRM.

Key features

With Data Quality App, businesses can have confidence in the accuracy and completeness of their data, leading to better decision-making and improved operational efficiency.

Some of the key features:

- Create and manage custom data quality rules for any entity.
- Phonetic Fields algorithm indexing data by sound, as pronounced and by correction rate of 99%.
- Get overview of current duplicated data.
- Prevent creation of duplicates on all entities for users & integrations.
- Merge records using built-in logic to define a master.
- Define unlimited rules across all entities standard & custom.
- Real-time detection capturing duplicates before they get created.
- Get real-time alerts of rule violations with varying severity levels.
- Control the ability to save a record based on rule severity.
- Search for data quality rules using advanced find or add them to the dashboard.
- Search for any entity that have warnings or errors due to data quality rules.
- Fully integrated into Dynamics 365 & Power Apps
- No external access to data.
- No API development needed.

Supported versions

Our add-on is designed to work seamlessly with a variety of Dynamics 365 versions and environments. Currently, our add-on supports Dynamics 365 versions 2015 [8.x] and 2016 [9.x] On-Premises, as well as Dynamics 365 Online and Power Apps environments.

This means that organizations using any of these Dynamics 365 versions can benefit from our add-on's powerful data quality tools and features. Whether an organization is running an on-premise installation or using a cloud-based solution, our add-on is designed to integrate seamlessly and provide reliable, accurate results.

By supporting multiple Dynamics 365 versions and environments, our add-on helps organizations maintain consistent data quality standards across their entire system, regardless of where their data is stored. This, in turn, can lead to better decision-making, improved customer experiences, and increased productivity.

We are committed to providing our customers with the flexibility and functionality they need to achieve their data quality goals, and our support for multiple Dynamics 365 versions and environments is just one way we are fulfilling that commitment.

The trial comes with 30 days license key. Version offers full functionality of a licensed version. The difference between trial and full version is stated below:

- Trial version: One active rule at a time - auto bulk merge up to 10 records – no support included.
- Full version: Unlimited number of rules – unlimited merge options – 24/7 full support included.

Data Quality Rules

Data Quality Rules feature provides a set of rules, guidelines and conditions that are used to ensure that data within the system is accurate, complete, and consistent. These rules help to maintain data integrity and improve overall data quality requirements setup by the business.

Our Data Quality Rules are used to identify and flag data errors and inconsistencies. They can be applied to specific fields or entities within the system and can be customized to meet the specific needs of an organization.

A wide range of options are available with our custom rule creation functionality. From defining minimum length of a field, if a record has been modified recently, when, and how many activities has been created for a record. It's not all, you can filter which activities are relevant for you, like when the last email was received or last time an appointment was held.

To maintain accurate data, prevent record changes until all requirements are met. Use dashboards to quickly identify any non-compliant records.

Supporting regular expressions REGEX & Flow extending your data management capabilities.

By implementing these and other data quality rules in Dynamics 365, organizations can ensure that their data is accurate, consistent, and reliable. This, in turn, can lead to better decision-making, improved customer experiences, and increased productivity. Overall, data quality rules are an important aspect of maintaining a high level of data quality in Dynamics 365.

Creating Data Quality Rules

Navigate to the Data Quality App and on the Data Quality Rules section, click "**New**".

General explanation of Rule Configuration:

Entity: Data Quality Rule configuration will be configured on this entity.

Field: Choose a field for which criteria will be configured to provide desired quality of data.

Rule Type: Pick from various validation options to define the criteria.

Severity: Choose the level of severity, such as "**Warning**" or "**Error**".

- **Error Severity:** If set to "Error," records must meet the validation criteria before they can be saved.
- **Warning Severity:** If set to "Warning," a warning is displayed if criteria are not met, but the record can still be saved.

REGEX: In this field enter Regular expression when Rule Type: Regular expression validation is selected.

Minimum Value: Specify the minimum characters required to meet the criteria.

Not Older Than X Days: For "Last Modified" type, input the number of days.

Activity Type: Choose the type of activity for validation.

Activity State: Select Active, Inactive, or both states for activities.

Only for Business Unit: Apply the rule to specific Business Units.

Only For Team: Apply the rule to a selected Team.

Only when field: Validate rules based on specific criteria.

Name: Enter the name of the rule in this field, which will also appear on Data Quality Dashboards.

Ignore Users: Exclude specific users from the rule e.g., integration users.

After the rule has been configured, click "**Save**" and your rule is ready.

As soon as the rule is created, you will receive a notification window where you can update all existing records with the new rule.

The process can be started either in Foreground or Background.

After the process is completed, all records in the system will be updated, and you can use that rule to filter out records that do not meet the criteria.

Creating Data Quality Flow Type Rules

Navigate to Data Quality App, open Data Quality rules section, click "New" and for rule type select "Flow".

New Data Quality Rule - Unsaved

Configuration Ignore Users

Entity Account

Field (Deprecated) Process Stage

Rule Type * Flow

This will create a new field in an environment, that can be managed through flow.

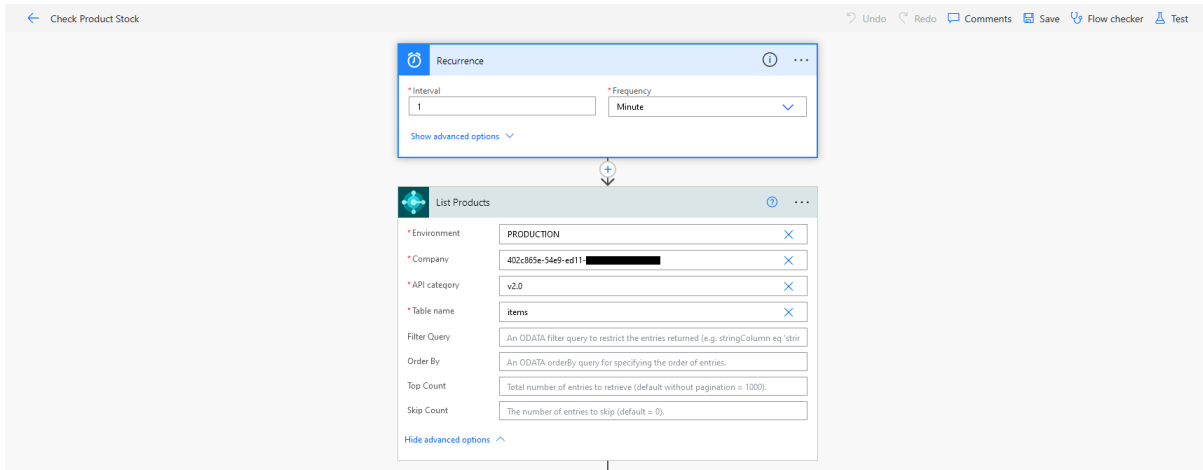
Values of the field are "Warning", "Error", "Skipped" and "OK".

Through Power Automate, or any other integration tool, this field can be set based on the criteria configured in the flow.

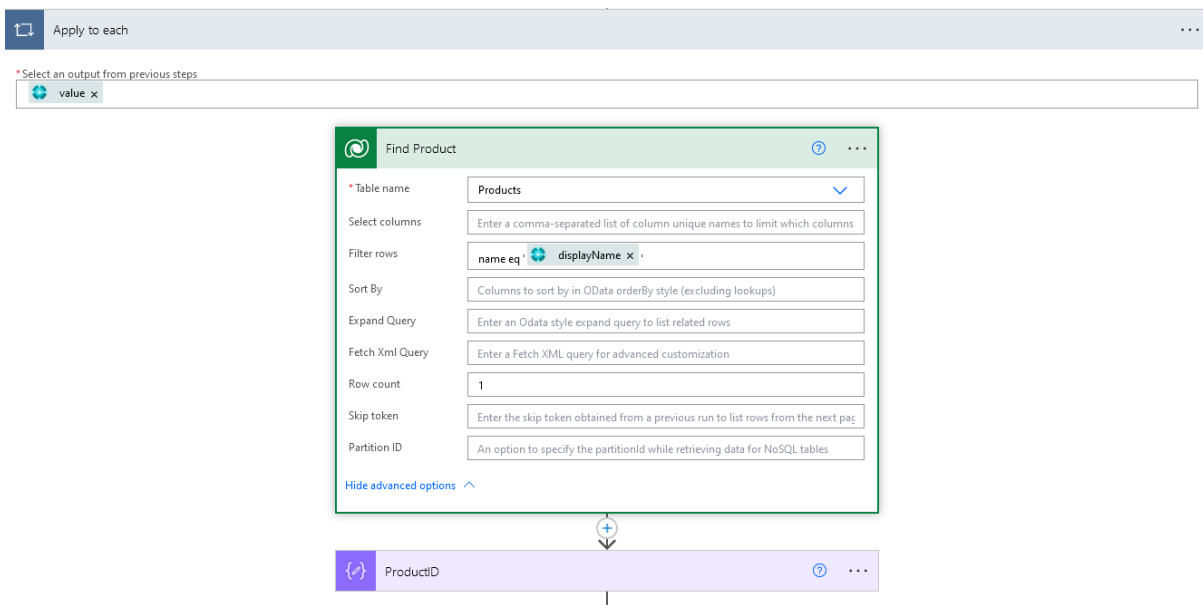
Example: Check product stock in Dynamics 365 Business Central, and set warning on Data Quality rule in Dynamics 365 if the value of stock of a product is under 10.

Step 1: Set the willing recurrence of your flow.

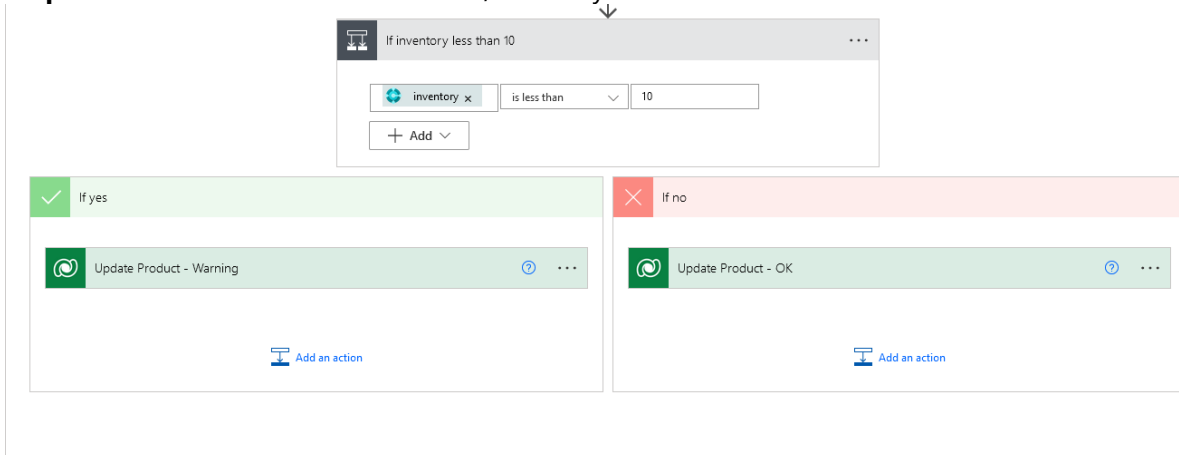
Step 2: List products from your Dynamics 365 Business Central.



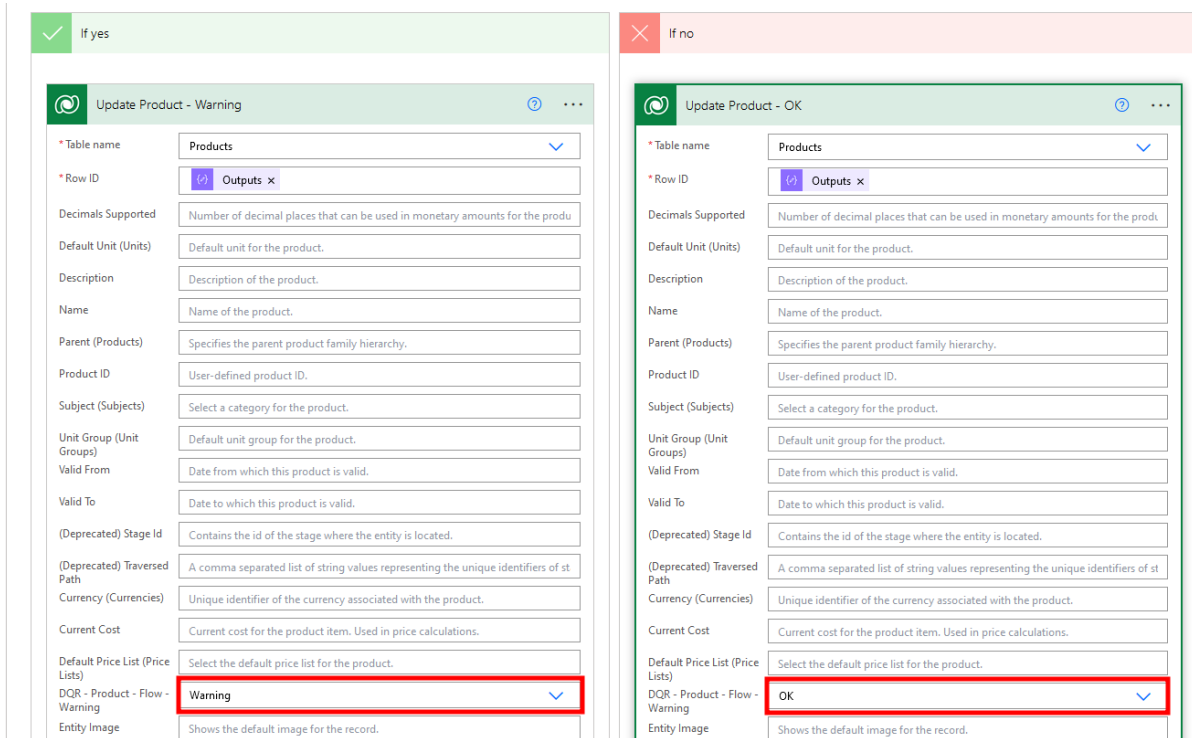
Step 3: For each product in Business Central, find a product with the same name in your Dynamics 365 environment.



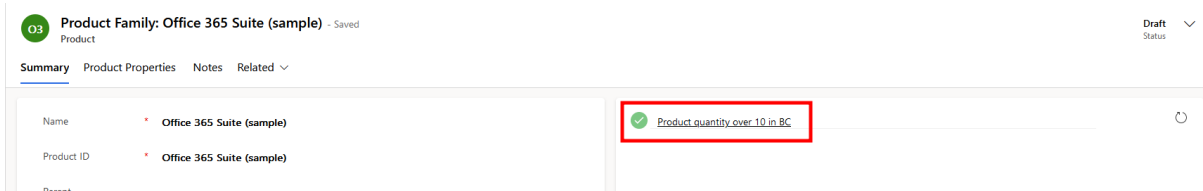
Step 4: Add a condition to check if stock/inventory value is less than 10.



Step 5: If the value of stock is less than 10, update Data Quality rule created before to “Warning”, if not, update the value to “OK”.



After creating the flow, value for each product will be shown on the dashboard displayed in Dynamics 365 environment on the Product entity.



Adding Data Quality Dashboard

To enhance the data quality monitoring experience for your required form, you can add a Data Quality Dashboard. This guide outlines the steps to accomplish this task:

Step 1: Navigate to Advanced Settings and Customize the System

1. Access the Dynamics 365 environment.
2. Navigate to "Advanced Settings" in the main menu.
3. Within "Advanced Settings," find "Customizations" and select "Customize the System."

Step 2: Select the Desired Entity and Form

1. From the customization options, choose the relevant "Entity" on which you wish to add the Data Quality Dashboard.

2. Once you've selected the entity, proceed to open the desired form associated with it.

Step 3: Add an Empty Section and Web Resources

1. Within the opened form, locate the area where you want to incorporate the Data Quality Dashboard.
2. Add a new, empty section to the form.

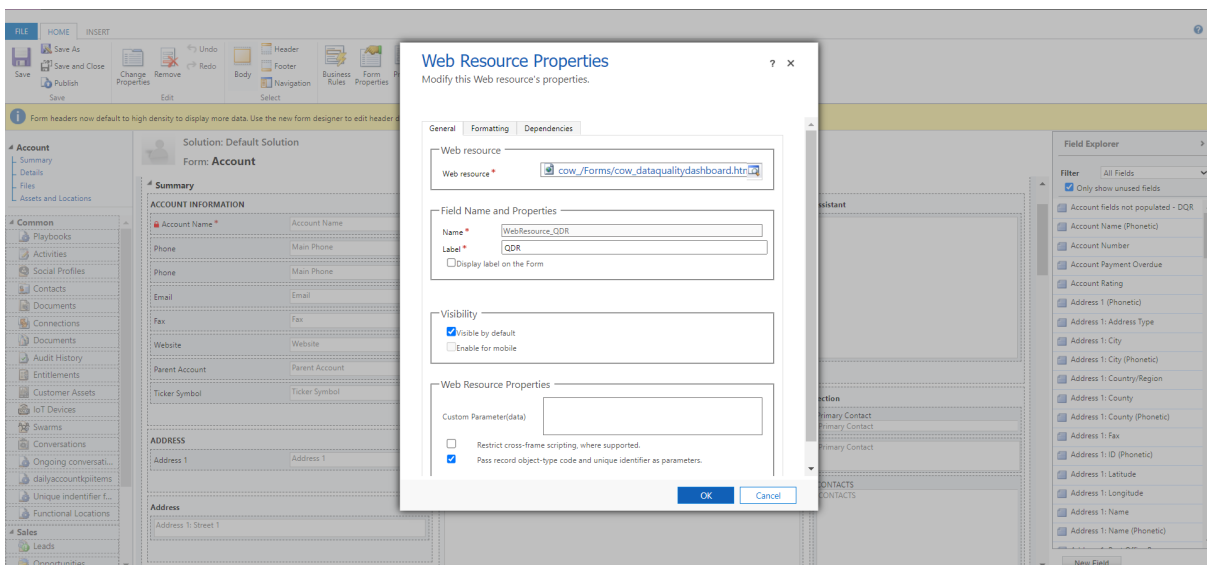
Step 4: Populate Web Resources with Information

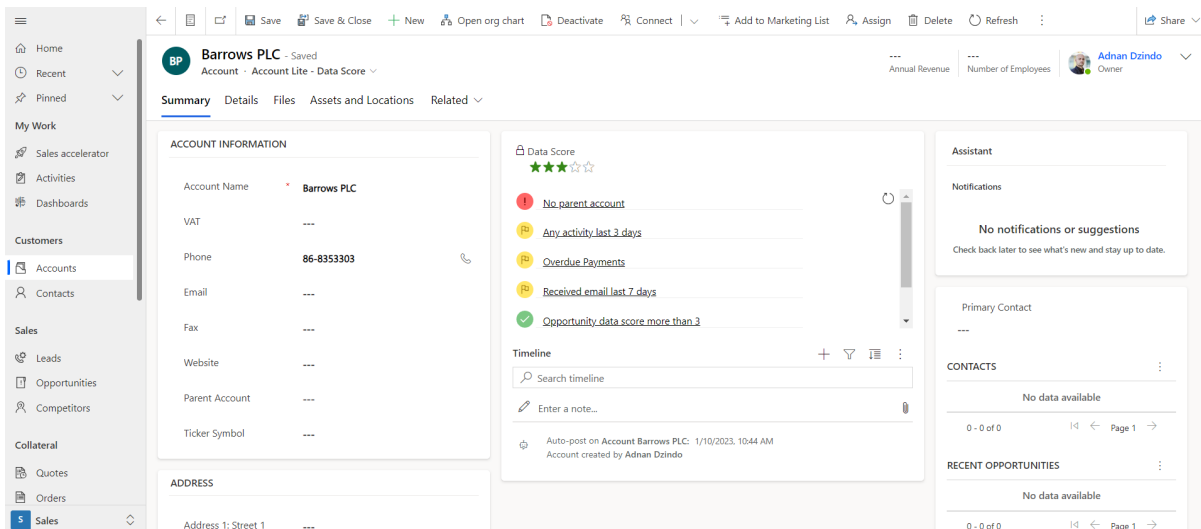
1. In this step, you'll be adding the necessary web resources to the newly created section. Populate the web resources as follows:
 - **Web Resource:** cow_/Forms/cow_dataqualitydashboard.html
 - **Name:** QDR
 - **Label:** QDR
 - In "Web Resource Properties," select: "Pass record object-type code and unique identifier as parameters."

Step 5: Save, Publish, and Access Your Dashboard

1. After adding the web resources and configuring their properties, save the changes made to the form.
2. Publish the changes to ensure they take effect.
3. Your Data Quality Dashboard is now ready to use! Access it through the required form by opening records associated with the entity you customized.

By following these steps, you'll successfully integrate a Data Quality Dashboard into your required form, enabling better data monitoring and enhancing the overall user experience.



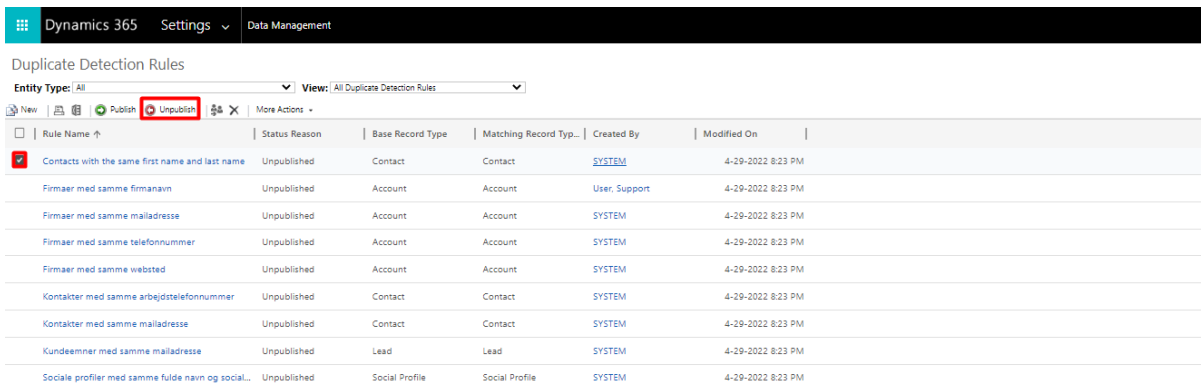


Duplicate Detection

It is recommended that you deactivate the duplicate detection rules in the build-in duplicate detection module before using Data Quality App.

The existing default duplicate detection rules can to be de-activated from:

Settings - Data management - Duplicate Detection Rules - Choose the rule and unpublish.



Creating Duplicate Detection Rules

The first step in creating rules is to navigate to the '**Data Quality App**' and click '**New**' under the Duplicate Rules section.

Upon opening, select the '**Source Entity**' field. You will see '**Loading**'. Wait until it finishes scanning your system for entities. In case the data is taking a long time to load, scroll down to the bottom of the screen, wait a few seconds, and then go back up.

Once ready, give the rule a name for example, "Contact with same email".

Note: When users or integrations receive a warning, the name of the rule will be displayed.

General explanation:

Source Entity: This entity's data will be used as a source.

Target Entity: This entity will be used to retrieve target data.

Example: To check duplicate contacts, select 'Contact' in both source and target entities. To check if a lead is already an account, select 'Leads' in the source and 'Account' in the target entity.

Creating cross entity duplicate rules, preventing duplicates, and running mass detections are possible, however, merging cross entity duplicate rules is not possible.

Result View: The following option allows users to select which columns/fields should be displayed when they receive a duplicate warning for 'Target Entity'.

Example: When receiving duplicate warnings, you may want users to see 'First name, Last name, E-mail, Owner' of contacts.

In order to use this option, a System View must be created and used.

Manual Merge Filter: Using this method, users can customize which fields are displayed for "Manual Merge".

Example: With Manual Merge, only the first name, last name, e-mail, phone number, and address of your contacts should be displayed. By creating a "System View" with only those fields, you would select it in this filter, and Manual Merge would then only display those fields.

Run As User: Detect duplicates based on data this user has read access to.

Run As System: If you wish to detect duplicates in the whole system, regardless of what the user has access to, this option is available. User 'A' can only read his own records, but you want it to detect duplicate records if users attempt to create records in the CRM owned by user 'B'. In this case, the user will receive a duplicate record warning, but will not be able to take any action. To merge duplicate records, the user must have read/write access to them in their security roles.

Tip: We recommend using this option.

Run On: The presence of duplicate records can be detected when a record is created, updated, or both.

Include Inactive: If needed, duplicate records can be checked against inactive records.

Allow Duplicates: This option controls whether users or integrations can create new duplicates. Even if it's allowed, users will receive a warning and can choose whether to cancel or save.

Set to no, it will warn the user and prevent them from creating new records, as well as prevent integrations from creating new ones.

Enable for List View: If set to Yes, users can start Bulk Detection directly from the selected entity. This will enable end users to detect duplicate records without having to access a duplicate detection app.

Register Form Scripts: When set to Yes, this option will enable real-time warnings. Scripts will be automatically added to the form when a rule is created using this feature. Selecting this option only

once during the creation of your first rule is all you need to do. By setting it to "No", real-time warning windows will not appear to users, and scripts will need to be manually added later on.

Source Entity Filter Type: You can filter the source data using this option, for example, 'Only contacts with an e-mail address'. It is possible to filter records using the existing system view or by fetch XML. Source Filtering only works when the 'Allow Duplicates' field is set to No.

Target Entity Filter Type: You can use this method to filter target data that will be checked for duplicates by the source data, such as 'Only contacts with email addresses'. Records can be filtered using the existing system view or by fetch XML. Source Filtering only works when the 'Allow Duplicates' field is set to No.

Ignore users: The duplicate detection rule can be bypassed by adding ignored users; for example, if you want your integration user to be excluded, you can add account here.

Rule Criteria: Before you can add fields to the Rule, it must first be saved. You will see a new window after clicking the '+' sign. Based on the selected target and source entities, fields will be detected automatically.

Source Field: You want to use this field to detect duplicates from the source entity
Target Field: The target entity field you want to check against the source field for duplication.

Compare Blank Values: When a field is empty, do you want it to ignore those two contacts or do you want it to detect them as duplicates?
For example, if you have two contacts without e-mails and you use e-mail to detect duplicates, do you want it to ignore those two contacts or do you want it to detect them as duplicates?

Field Type: This only displays the type of field you selected.

Compare Lookups As Text: When using a lookup field, such as 'Parent Account', you can choose whether to detect duplicates based on the record or the name value. Duplicates can be detected, for instance, with a specified account as parent, or with a parent account that shares the same name.

Duplicate Detection Rule: It is the name of the DD Rule that this field matching belongs to.

Trim Text: If you wish, you can remove space before and after the value. ☐Only applicable to target fields☐

Remove White space: If you wish, all spaces can be removed from a value. ☐Only applicable to target fields☐

Text Comparison: Select how fields from source and target entities will be matched. ☐Only applicable to target fields☐

Exact: The values in the target and source fields are identical. ☐Only applicable to target fields☐

First N Characters: This number of characters will be used to detect duplicates in the target field based on the source field.

Example: You have a Cowia Solutions account. Selecting 'First N Characters' and setting it to '5' will then detect duplicates based on the first five characters of the account name.

Last N Characters: Same as above, but instead of the first character, use the last.

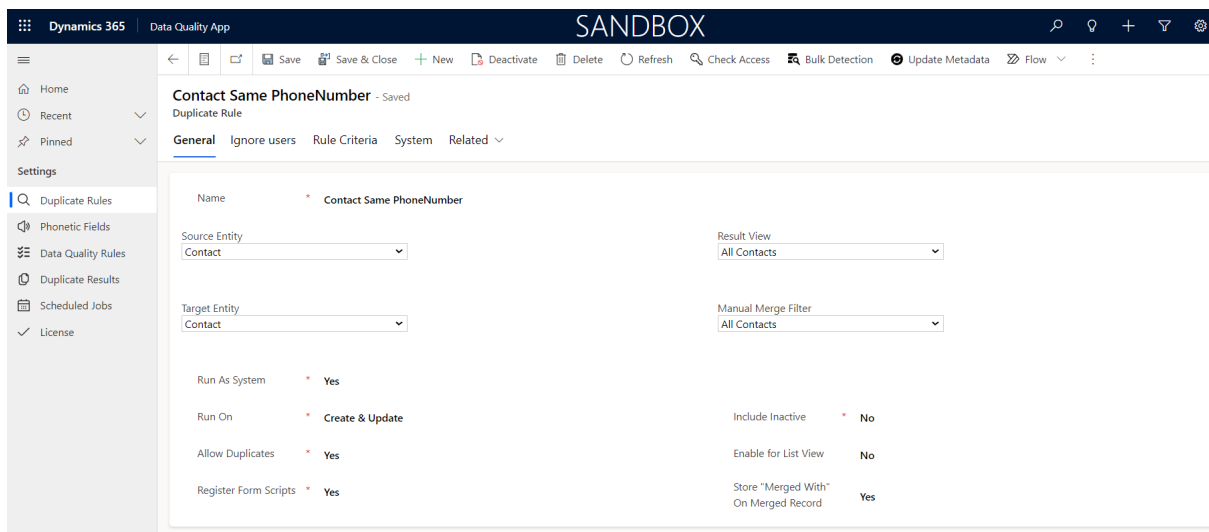
Contains: If the value from source field is part of the value from target field, the duplicate value will be detected.

Example: Suppose you have a Cowia Solutions account and want to create a new one named Cowia, it will detect that the account has already been used since Cowia is a part of Cowia Solutions.

2 Word Match: All records with the same two words, regardless of their placement, will be detected.

Ignore Words: By separating values with commas, it is possible to ignore/exclude words from the value.

When detecting duplicate accounts, Inc, Corp, GmbH, and ApS should be excluded from the account name.



Phonetic Fields

Phonetic fields use an algorithm to create values based on pronunciations in specific languages. A phonetic search checks records based on pronunciation in three languages: English, German, and Spanish.

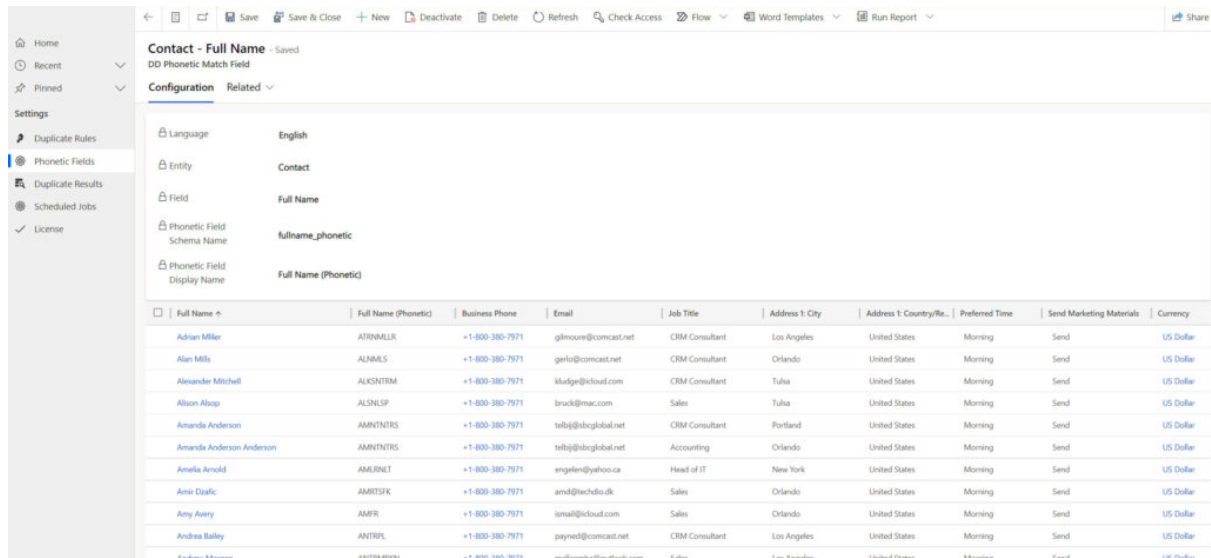
An algorithm called Metaphone 3 allows words to be represented in phonetic form. In comparison to its predecessor, Metaphone 3 is designed to be more accurate and has the ability to deal with a wider range of words and languages. Using a set of rules, Metaphone 3 analyzes sounds in a word and assigns them codes.

As an example, the code for the letter "B" is "B" unless it is followed by an "H", in which case the code is "F". Once the codes are combined, a unique phonetic representation of the word is created.

A key benefit of using phonetic fields and algorithms like Metaphone 3 is that they improve search accuracy while reducing false positives.

Example: If a user searches for "Smith", phonetic fields can return results for "Smyth" and "Schmidt" as well, since they sound similar.

Users may find this particularly useful when they are unclear about the exact spelling of a word or name.



Creating Phonetic Fields Rules

In order to configure a Phonetic fields on an entity and a specific field, you will need to select the entity and the field you want to use. Following that, you will select the language that will be used for checking pronunciations. As a result of the pronunciation, new fields will be generated for selected entity and a specific value will be assigned to each record.

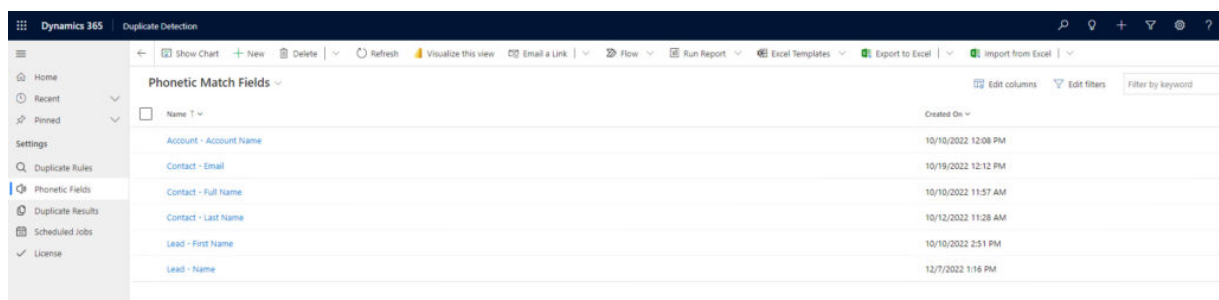
Phonetic fields can be configured on all entities in Dynamics 365 and PowerApps, custom or default.

After configuring the new phonetic field, you can use it in a duplicate detection rule.

The "Phonetic field" that you created earlier will be selected in the rule criteria when you start creating the rule.

When you have completed all configurations, click "Save" and your rule will become active immediately.

If a user misspells a record in the system, but if it is pronounced same, a warning window will appear telling them that the same record already exists. This works in real time.



Bulk Detection

Run bulk detection on any duplicate rule to check for duplicates.

Choose 'Duplicate Rules' from the Data Quality App and open the rule you wish to run bulk detection on. You will be asked whether to run Bulk Detection in the background or in the foreground when you click the Bulk Detection button.

Foreground: In other words, bulk detection will run in your browser, and you will need to keep it open to complete it. Foreground has the advantage of being faster than background. The downside is that you have to keep your browser open, and timeouts are more likely. When you click 'Foreground', a new window will appear where bulk detection will begin and the status can be viewed. Upon completion of bulk detection, you can select 'Open report' or 'Show all duplicates'. To see results from all duplicate rules that have been executed in bulk, select 'Duplicate Results' in the 'Data Quality App'.

Background: The Bulk Detection Background Service must be installed in order to work. A schedule can be set up to run at a specific time or immediately. Running on background records is more reliable when running on many records at once, as you don't need to keep your browser open. If the background service stops for unknown reasons, it will resume where it left off when restarted. When you deactivate a background job, CRM will stop processing records. A job that fails will be added to the CRM error list. You can activate the job in this state and it will retry 10 times and go back to 'Error' if it fails. Choosing 'Cancel' also cancels the job if it is in 'Error' mode. Background services are recommended if there are many records, or if the foreground service timeouts.

The ability to schedule multiple jobs has been added. Upon completion of one job, the service will proceed to the next. The new service can be deployed on your own Azure environment. You can download the new background service from our website: [Background Service](#). The performance of BG is improved when it is run in Azure. BG service performance is typically better in Azure environments, because bulk-detect/automerger work more quickly.

The user with the 'Duplicate Detection Bulk Operations' security role can schedule bulk detection and bulk merge jobs on another user's behalf. The 'Run as current user' option cannot be unchecked. Duplicate rules will ignore 'Run as' settings. Users with administrative rights can uncheck the box and schedule the job to run according to the rule.

The status of scheduled tasks can be viewed by opening the 'Data Quality App' and selecting 'Scheduled Jobs'. Additionally, duplicate results will be stored in 'Duplicate Results'.

Bulk duplicate detection operation

Running on rule "Account with same name"

Please do not close this window while the operation is running, else it will fail to complete.

Status: Processing record 50 / 286

Detected duplicates:

	Name	T	Status	Duplicate count	Open record	Show duplicates
<input type="checkbox"/>	Abernathy-Bechtelar		Active	1	Open record	Show duplicates
<input type="checkbox"/>	Barrows PLC		Active	2	Open record	Show duplicates
<input type="checkbox"/>	Barrows PLC		Active	2	Open record	Show duplicates
<input type="checkbox"/>	Barrows PLC		Active	2	Open record	Show duplicates
<input type="checkbox"/>	Barton PLC		Active	2	Open record	Show duplicates
<input type="checkbox"/>	Barton PLC		Active	2	Open record	Show duplicates
<input type="checkbox"/>	Barton PLC		Active	2	Open record	Show duplicates
<input type="checkbox"/>	Bogan Group		Active	1	Open record	Show duplicates
<input type="checkbox"/>	Hagenes and Bins		Active	1	Open record	Show duplicates
<input type="checkbox"/>	Hagenes and Bins, Bahringer		Active	1	Open record	Show duplicates

Showing 1 to 10 of 10 entries

Previous 1 Next

Manual Merge

A new Manual Merge capability has been added to the solution based on customer feedback. This feature allows for manual merge of duplicate records in bulk duplicate detection results. After running a duplicate detection job, you can select multiple duplicate records from the Duplicate Detection result window and perform a manual multiple record merge toward the desired duplicate records.

To merge the duplicate records, click on the "merge selected" button, which will open a new window that allows you to select attributes from different records. With this capability, data from different records can be mixed and matched to create a master record. This merge process can also include related data.

This manual merge capability provides greater control over the merging of duplicate records, allowing you to ensure that the most accurate and complete record is retained. It is a powerful tool that can save time and effort, enabling you to maintain a high level of data quality in your organization.

Merge: By specifying the fields, users can select the master record and merge records.

Delete: Directly from the Manual Merge window, you can select and delete specific records.

Ignore: When merging multiple records, the Merging window allows users to exclude specific records. By selecting a record and clicking Ignore, you exclude it from merging.

Duplicate detection manual merge allows you to merge an unlimited number of records at the same time, so you can have multiple records in the same Merging window.

Manual merge

Target status for merged records:

Field	<input checked="" type="radio"/> MASTER	<input type="radio"/> Select all fields	<input type="radio"/> Make master	<input type="radio"/> Select all fields	<input checked="" type="radio"/> Make master	<input type="radio"/> Select all fields
Name	<input type="radio"/> Amanda Anderson Anderson	<input checked="" type="radio"/> Amanda Anderson	<input type="radio"/> Test Test 2			
Created on	10/6/2022 10:12 AM	12/14/2022 11:07 AM	1/9/2023 2:39 PM			
Address 1: City	<input type="radio"/> Orlando	<input type="radio"/>	<input checked="" type="radio"/>			
Address 1: Country/Region	<input type="radio"/> United States	<input type="radio"/>	<input checked="" type="radio"/>			
Address 2: Address Type	<input type="radio"/> Default Value	<input type="radio"/> Default Value	<input checked="" type="radio"/> Default Value			
Address 2: Freight Terms	<input type="radio"/> Default Value	<input type="radio"/> Default Value	<input checked="" type="radio"/> Default Value			
Address 2: Shipping Method	<input checked="" type="radio"/> Default Value	<input type="radio"/> Default Value	<input type="radio"/> Default Value			
Back Office Customer	<input type="radio"/> No	<input type="radio"/> No	<input checked="" type="radio"/> No			
Business Phone	<input type="radio"/> +1-800-380-7971	<input checked="" type="radio"/> +1-800-380-7971	<input type="radio"/>			
Credit Hold	<input type="radio"/> No	<input type="radio"/> No	<input checked="" type="radio"/> No			
Currency	<input type="radio"/> US Dollar	<input type="radio"/> US Dollar	<input checked="" type="radio"/> US Dollar			
Customer Size	<input type="radio"/> Default Value	<input checked="" type="radio"/> Default Value	<input type="radio"/> Default Value			
Do not allow Bulk Emails	<input type="radio"/> Allow	<input type="radio"/> Allow	<input checked="" type="radio"/> Allow			
Do not allow Bulk Mails	<input type="radio"/> No	<input type="radio"/> No	<input checked="" type="radio"/> No			
Do not allow Emails	<input type="radio"/> Allow	<input type="radio"/> Allow	<input checked="" type="radio"/> Allow			
Do not allow Faxes	<input checked="" type="radio"/> Allow	<input type="radio"/> Allow	<input type="radio"/> Allow			
Do not allow Mails	<input type="radio"/> Allow	<input type="radio"/> Allow	<input checked="" type="radio"/> Allow			
Do not allow Phone Calls	<input type="radio"/> Allow	<input type="radio"/> Allow	<input checked="" type="radio"/> Allow			

Bulk Merge

Bulk merge is done by opening the '**Data Quality App**', selecting the 'Duplicate Result', selecting the bulk detection result you wish to use for bulk merge, and clicking 'Merge Duplicates'.

Rules: Records will be merged with the master record in the order selected.

1. Only empty fields will be populated.
2. Merging related records is optional.
3. Merged records will be deactivated after the operation succeeds.
4. If record is closed, it will be re-opened and closed again when merging.

Selecting the master record:

Select master record by using FetchXML: By using fetchXML to select master records, only records meeting the filter criteria will be merged. If more than one master record is found for the duplicate set, it will use the merge order option to select the master record. Duplicates that have not been merged can be merged by changing fetchXML criteria or merge order options only. Use advanced find to create fetchXML, create a filter, and click 'Download Fetch XML'. Only fields from the same form/entity can be used. Fields from related entities are not allowed to be used.

Oldest to newest: Oldest record is preserved, by using the 'Created On' or 'Modified On' value, you can choose to preserve the oldest master record in CRM.

Newest to oldest: Newest record is preserved, you can select that master record will be the newest in CRM by using 'Created On' or 'Modified On' value.

Most to least: Having least of record is preserved, you can select that master record will be the one with least activities or by least filled fields.

Merge related records: Related records can be merged. You will move related records from duplicate records to master records if you do this.

Skip errors: You may want to skip errors when it runs bulk merge by having some business logic on the record where it fails. In this case, you would continue to the next record or stop the bulk merge process altogether. When background operations are running, this feature is always enabled.

Fields: If a master record has values in any field, they will not be overwritten, only empty fields on the master record will be merged.

Operation: To run bulk merge in the background, check 'Work in background', choose whether to schedule the job, and click 'Start merge'. If you do not select 'Work in background', the job will run in the foreground, and you will need to wait for it to finish.

Once a record is merged, it will be marked, and if you run bulk merge again on the same 'Bulk Operations Result', it will not be merged again. In the column 'Merged,' you can see this information.

The screenshot displays the configuration for a Bulk Merge operation. It includes several sections:

- Rules:** A list of four rules:
 - Records will be merged with the master record in the selected order.
 - Only selected and empty fields will be overwritten.
 - Merging related records is optional.
 - Merged records will be deactivated after the operation succeeds.
- Executing on Bulk Detection Operation:** A section titled "Account with same name 2023-08-25 09:47:20" with a "Open" link. It includes a checkbox for "Select master record by using FetchXML" and a note: "Only records that meet the filter criteria will be merged. If it finds more than one master record for the duplicate set, it will select the master record using the merge order option below."
- Merge order:** Three radio button options:
 - Oldest to newest (Oldest record is preserved) using **Created On** (dropdown)
 - Newest to oldest (Newest record is preserved) using **Created On** (dropdown)
 - Most to least (Having most of record is preserved) of **Activities** (dropdown)
 - Least to most (Having least of record is preserved) of **Activities** (dropdown)
- Merge related records:** A checkbox "Include related (All closed/completed related records will, during the merge be reopened and closed again. Modified date will be changed)." Below it are two columns: "One to many:" and "Many to many:".
 - One to many:**
 - account ⇒ masterid
 - account ⇒ parentaccountid
 - actioncard ⇒ regardingobjectid
 - activityparty ⇒ partyid
 - activitypointer ⇒ regardingobjectid
 - annotation ⇒ objectid
 - appointment ⇒ regardingobjectid
 - association ⇒ regardingobjectid
 - Many to many:**
 - accountleads
 - bulkoperationlog
 - bulkoperationlog
 - listmember
 - msdyn_msdyn_functionallocation_account
- Skip errors:** A checkbox "Continue to next record on error".
- Operation:** A **Start merge** button and a checkbox "Work in background".
- Fields (all):** A list of fields with checkboxes, including:
 - All
 - (Deprecated) Process Stage (stageid)
 - (Deprecated) Traversed Path (traversedpath)
 - Account Name (name)
 - Account Name (Phonetic) (name_phonetic)
 - Account Number (accountnumber)
 - Account Rating (accountratingcode)
 - Address 1 (Phonetic) (dd_address1_composite_phonetic)
 - Address 1: Address Type (address1_addresstypecode)
 - Address 1: City (address1_city)
 - Address 1: City (Phonetic) (dd123_address1_city_phonetic)
 - Address 1: Country/Region (address1_country)
 - Address 1: County (address1_county)
 - Address 1: County (Phonetic) (address1_county_phonetic)
 - Address 1: Fax (address1_fax)
 - Address 1: Freight Terms (address1_freighttermscode)
 - Address 1: ID (Phonetic) (dd_address1_addressid_phonetic)
 - Address 1: Latitude (address1_latitude)
 - Address 1: Longitude (address1_longitude)
 - Address 1: Name (address1_name)
 - Address 1: Name (Phonetic) (address1_name_phonetic)
 - Address 1: Post Office Box (address1_postofficebox)
 - Address 1: Primary Contact Name (address1_primarycontactname)
 - Address 1: Shipping Method (address1_shippingmethodcode)
 - Address 1: State/Province (address1_stateorprovince)
 - Address 1: Street 1 (address1_line1)
 - Address 1: Street 1 (Phonetic) (dd_address1_line1_phonetic)
 - Address 1: Street 2 (address1_line2)
 - Address 1: Street 3 (address1_line3)
 - Address 1: Telephone 2 (address1_telephone2)
 - Address 1: Telephone 3 (address1_telephone3)
 - Address 1: UPS Zone (address1_upszone)
 - Address 1: UTC Offset (address1_utcoffset)
 - Address 1: ZIP/Postal Code (address1_postalcode)
 - Address 2: Address Type (address2_addresstypecode)

Security Roles

Security roles play a crucial role in ensuring proper access and control over the Duplicate Detection add-on.

Follow these steps to manage security roles effectively and grant the appropriate access levels to users:

Step 1: Duplicate Detection Security Roles Overview

1. Duplicate Detection has three dedicated security roles to control access: "Duplicate Detection," "Duplicate Detection Bulk Operations," and "Duplicate Detection Administrator."

2. It's important to note that having the "Duplicate Detection" security role, in addition to the CRM administrator role, is necessary for users.

Step 2: Assign "Duplicate Detection" Security Role

1. The "Duplicate Detection" security role should be assigned to non-administrative users who need access to the add-on.
2. This role grants minimal access to the add-on's features, ensuring that users have the necessary access without compromising system security.

Step 3: Assign "Duplicate Detection Bulk Operations" Security Role

1. Assign the "Duplicate Detection Bulk Operations" security role to users who need to schedule bulk detection and merging tasks on their own.
2. This role empowers users to perform these tasks efficiently, enhancing their data management capabilities.

Step 4: Assign "Duplicate Detection Administrator" Security Role

1. For users who require full access to the add-on, assign the "Duplicate Detection Administrator" security role.
2. Only users with this role have the ability to uncheck the 'Run as current user' checkbox, granting advanced control over the add-on's settings.

Note on Team Roles and Bulk Assignment

1. Keep in mind that team roles are not supported in the current version of the Duplicate Detection add-on.
2. Use the feature to assign rules in bulk to multiple users, especially for Standard MSCRM environments. This streamlines the process of managing rule assignments.

Configure a warning window manually

Duplicate detection is crucial for maintaining data integrity. If the warning window script for duplicate detection isn't automatically added or has been removed, follow these steps to manually incorporate it into your form.

This guide can also be applied to Quick Create Forms.

Step 1: Navigate to Customization

1. Access your Dynamics 365 environment.
2. Click on "Settings" in the main menu.
3. From the dropdown, select "Customizations."

Step 2: Customize the Entity and Access the Main Form

1. Within "Customizations," choose "Customize the System."
2. In the "Entities" section, find and select the relevant entity for which you've set up Duplicate Detection [DD] rules.
3. Open the main form associated with the selected entity.

Step 3: Adding Scripts for Duplicate Warning Windows

1. After opening the form, go to the "Form Properties" tab.
2. Under "Form Libraries," click on "Add."
3. Choose "cow_/DuplicateDetection.js" from the available options.
4. In the "Event Handlers" section, select "OnLoad" and click "Add."
5. In the Library section, choose "cow_/DuplicateDetection.js."

6. In the Function section, enter "DuplicateDetection.onLoad."
7. Select both checkboxes and click "OK."

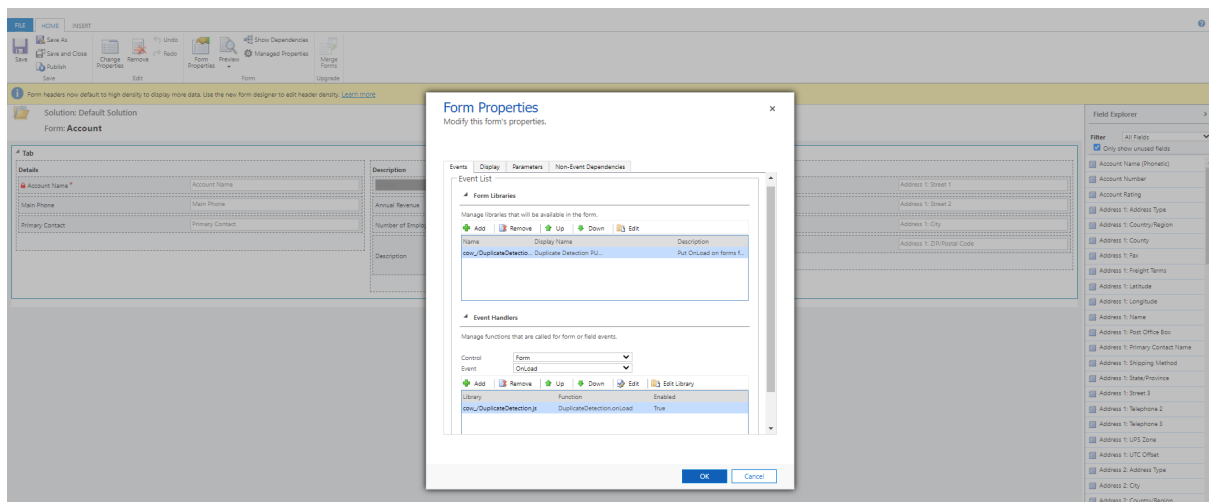
Step 4: Adding Scripts for OnSave Event

1. To handle the "OnSave" event, change the "Event" dropdown to "OnSave."
2. Click "Add" in the Event Handlers section.
3. For Library, select "cow_/DuplicateDetection.js."
4. In the Function section, enter "DuplicateDetection.onSave."
5. Select both checkboxes and click "OK."

Step 5: Save and Publish Changes

1. Once both scripts are added, click "Save" to apply the changes made to the form.
2. To ensure the changes are active, click "Publish" to publish the updated form.

By following these steps, you have successfully added the necessary warning window scripts for duplicate detection to the desired form. This will enable the warning window functionality and enhance data accuracy by preventing duplicate records.



Uninstalling Data Quality App

Before uninstalling the addon, it's crucial to disable the duplicate warning windows on the entities where the addon is enabled. Following these steps will prevent errors during the uninstallation process.

Step 1: Access Entity Customization

1. Open your Dynamics 365 environment.
2. Click on "Settings" in the main menu.
3. From the dropdown, select "Customizations."

Step 2: Choose the Entity and Form

1. Within "Customizations," opt for "Customize the System."

- In the "Entities" section, choose the entity for which the Duplicate Detection [DD] rule is active. For instance, select "Contacts."

Step 3: Remove Duplicate Warning Window

- Under the chosen entity, locate and select the "Forms" option.
- If your entity has multiple forms, perform this process for each relevant form to disable the warning window.
- Open the form where you want to disable the duplicate warning window.

Step 4: Navigate to Form Properties and OnLoad Event

- Once the form is open, click on the "Form Properties" tab.
- Look for the "OnLoad" events and find the script named 'cow_/DuplicateDetection.js'.
- Click on the "Remove" button associated with it. This will remove the duplicate warning window for the "OnLoad" event.

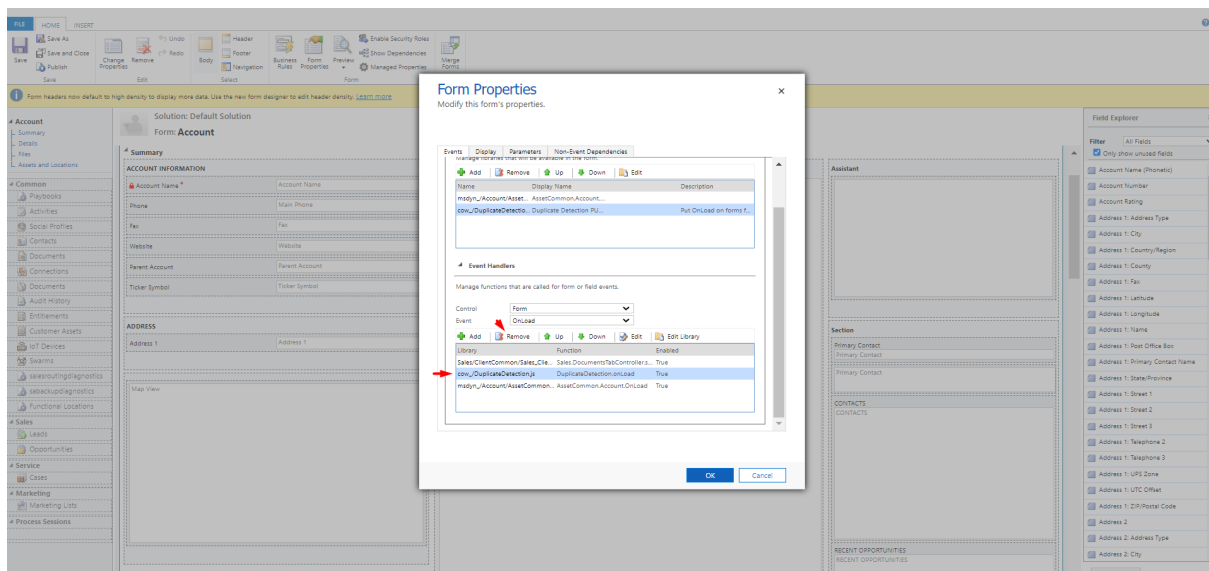
Step 5: Remove Duplicate Warning Window for OnSave Event

- In the same "Form Properties" tab, locate the "OnSave" events.
- Find the script 'cow_/DuplicateDetection.js' and click on the "Remove" button.
- After removing the script from both "OnLoad" and "OnSave" events, ensure that the warning window is effectively disabled.

Step 6: Save and Publish Changes

- Once the duplicate warning window scripts are removed, click "Save" to save your changes to the form.
- To apply the changes, click "Publish."

By following these steps, you have successfully disabled the user-friendly Duplicate Detection warning window for the specified entity and forms. This will allow you to uninstall the addon without encountering errors related to duplicate warning windows.



Now you can uninstall the addon by removing the solution.

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