



Advanced Data Mangement – Quick Guide

FLEXIBLE FIELD-LEVEL PERMISSION
MANAGEMENT THAT PREVENTS ERRORS

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INTRODUCTION

Advanced Data Management (ADM) is a tool offering more detailed security on access at enter or change data in your Dynamics solution.

On top of the standard permission sets which are granting users access to entire tables, ADM can ensure a rather specific write access on field level. ADM can also point out exactly what value or values the user can enter in a field.

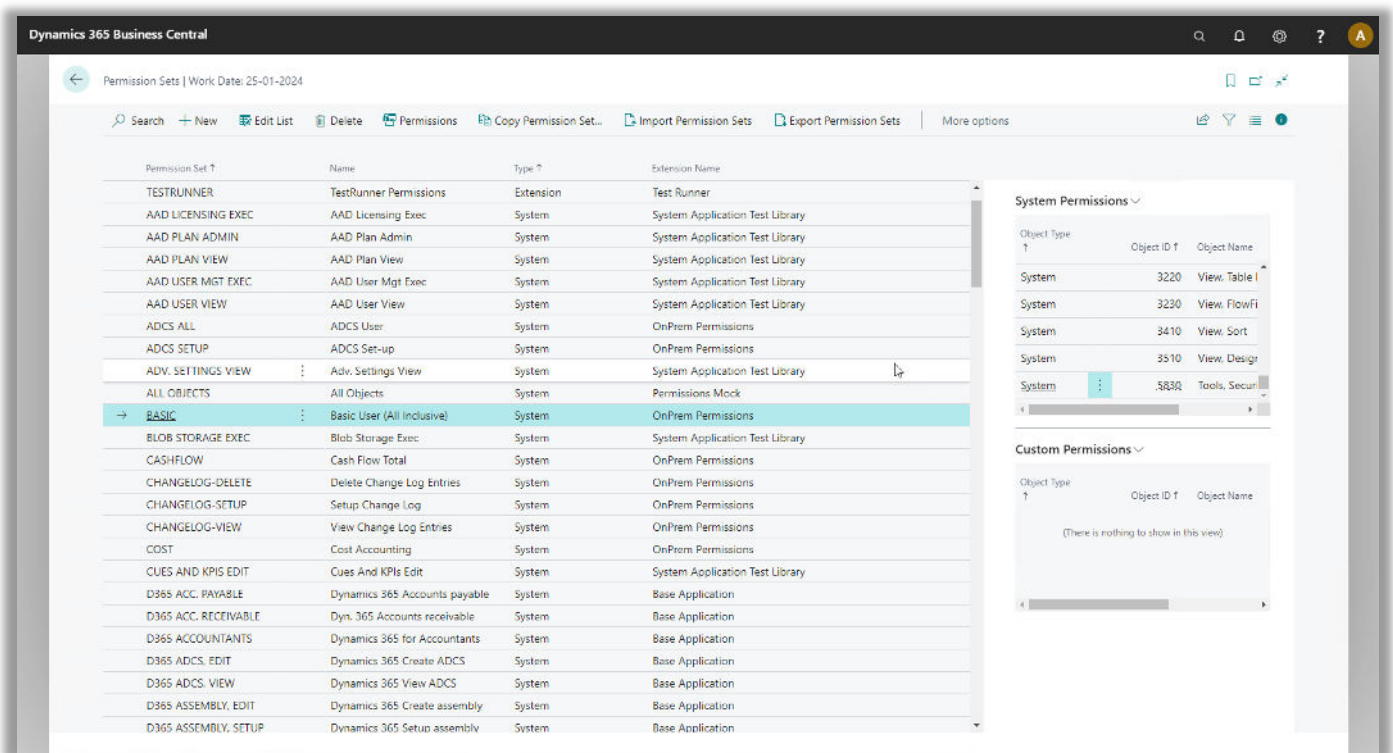
Setting up the ADM permissions can be on either table level or on field level.

This Quick Guide is meant as a help getting experience and understanding on Advanced Data Management.

KNOWING STANDARD PERMISSIONS

Permissions in Dynamics 365 Business Central has since the childhood of NAV been defined as access rights for data on a table level.

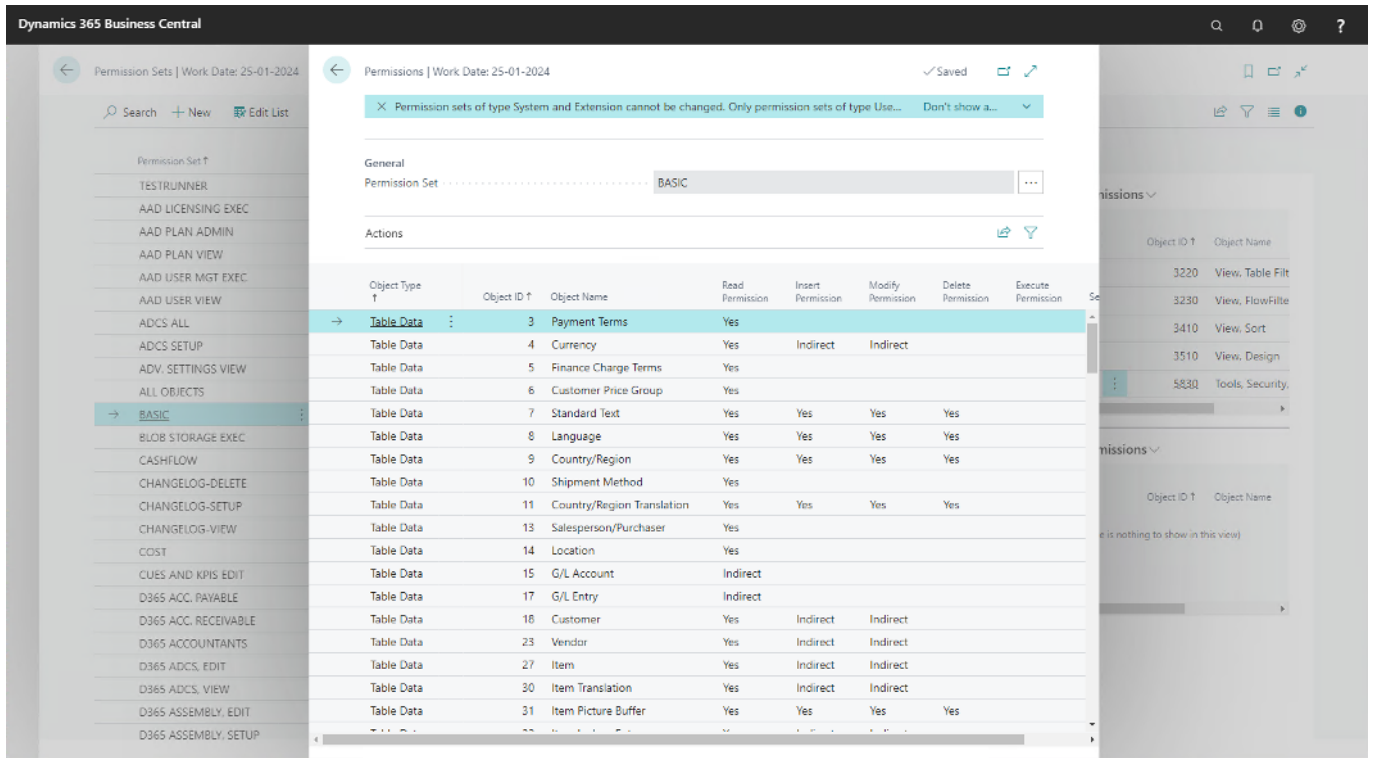
Found under Departments, Administration, IT Administration, General you will find access to *Permission Sets*.



To every permission set a number of tables are attached. Click Permissions to lookup what tables.

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These tables do have access rights set up. Permissions can be fully granted with a “Yes” or “Indirect”. “Indirect” meaning that the access is allowed when the access is required by a function performed by the user.

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SETTING UP FIELD ROLES

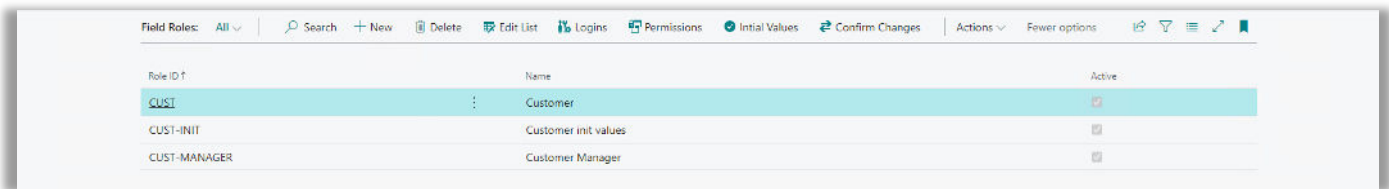
In the role center Advanced Data Management Administrator, the Field Roles can be defined.



Access to Field Roles can also be reached using the search field (spyglass icon).

Field Roles are what ADM is using as rules for access to tables and fields.

For every role there is a set of permissions, defining exactly what access a user granted the role is becoming.



Note that more Field Roles can be referring to the same table. With different roles for one table, different users can have granted different access rights to the one and same table.

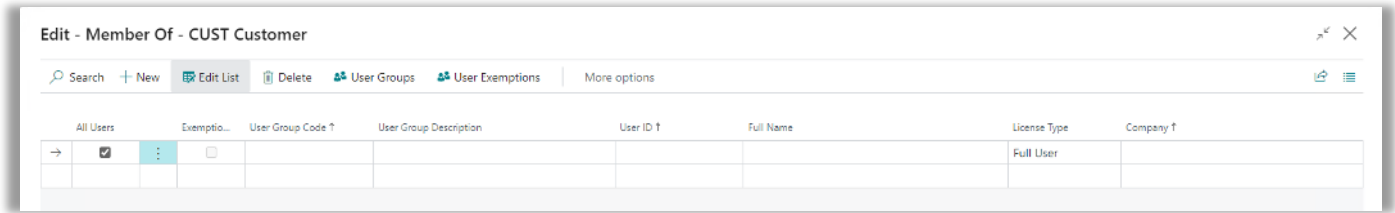
- Logins Define logins to the current field role.
- Permissions Define permissions for specific fields.
- Initial Values Define initial values to be set when creating a new record.
- Confirm Changes Define what changes must be confirmed.
- Setup Change Log Access to Change Log setup

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Logins

Defining what logins to be granted the access rules belonging to the current Field Role.



All Users

Selecting "All Users" activates the role for all users in Business Central.

Exemptions

Displaying No or Yes to indicate if any users have been excluded from the users covered by the Member Of line

User Group Code

Setting User Group when the permissions in the Field Role must be attached to a group of users.
An employee assigned to the User Group is inheriting permissions belonging to this group.

User Group Description

Description of selected User Group. Not editable.

User ID

Assign a specific user to the role.

Company

Leave this field empty if the role must affect all companies.
Entering a company makes the Field Role to be used in a single company.

Actions

User Groups

Assign a user group to the role.

User Exemptions

Define what users to be excluded from the granted member list. If you have selected "All Users" you can exclude one or more named users by adding them to the User Exemptions list.

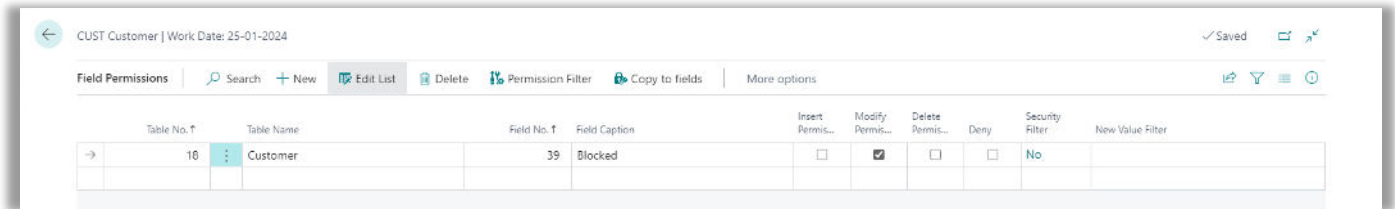
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Permissions

To every Field Role a few permissions must be defined. Permissions are applying to a given field within a selected table.

Set up permissions for a given field in a chosen table. The permission is linked to a Field Permission Code.



The permission is granting modify permission for field 39 Blocked in table 18 Customer.



Table No.	Enter number of the table for which the permissions are applying to.
Table Name	Name of the selected table. Not editable.
Field No.	Select the field number to define the field to be set up.
Field Caption	Name of the selected field. Not editable.
Insert permission	Applying insert access rights on the selected field.
Modify permission	Applying modify access rights on the selected field.
Delete permission	Applying delete access rights on the selected field.
Deny	Denying any kind of change access, including insert, modify and delete actions.
Security Filter	Yes is displayed if a Permission Filter has been defined.
New Value Filter	Showing if filter was set





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Permission Filter

Setting up rules for when a field can be changed is possible using "Permission Filters".

← Field Permission Filters | Work Date: 25-01-2024 ✓ Saved  

 Search + New Edit List Delete   

	Filter Field No. ↑		Filter Field Name	Filter Text
	2		Name	<>"
	5		Address	<>"
	16		Global Dimension 1 Code	<>"
	86		VAT Registration No.	<>"
→	88	⋮	Gen. Bus. Posting Group	<>"

A few fields must be filled in before modification of field 39 Blocked on table 18 Customer is possible. Otherwise, the change will be denied.

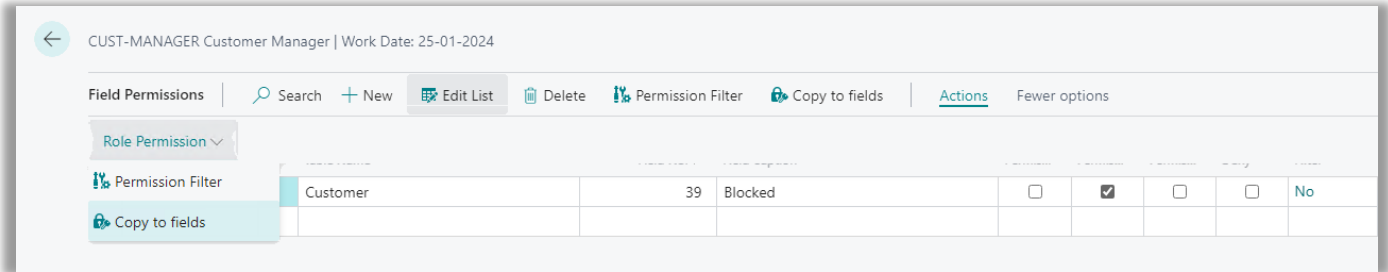
You can refer to specific values to be present in a given field or more loosely specified criteria like "<>" meaning not blank. Filters are as normally used in Business Central.

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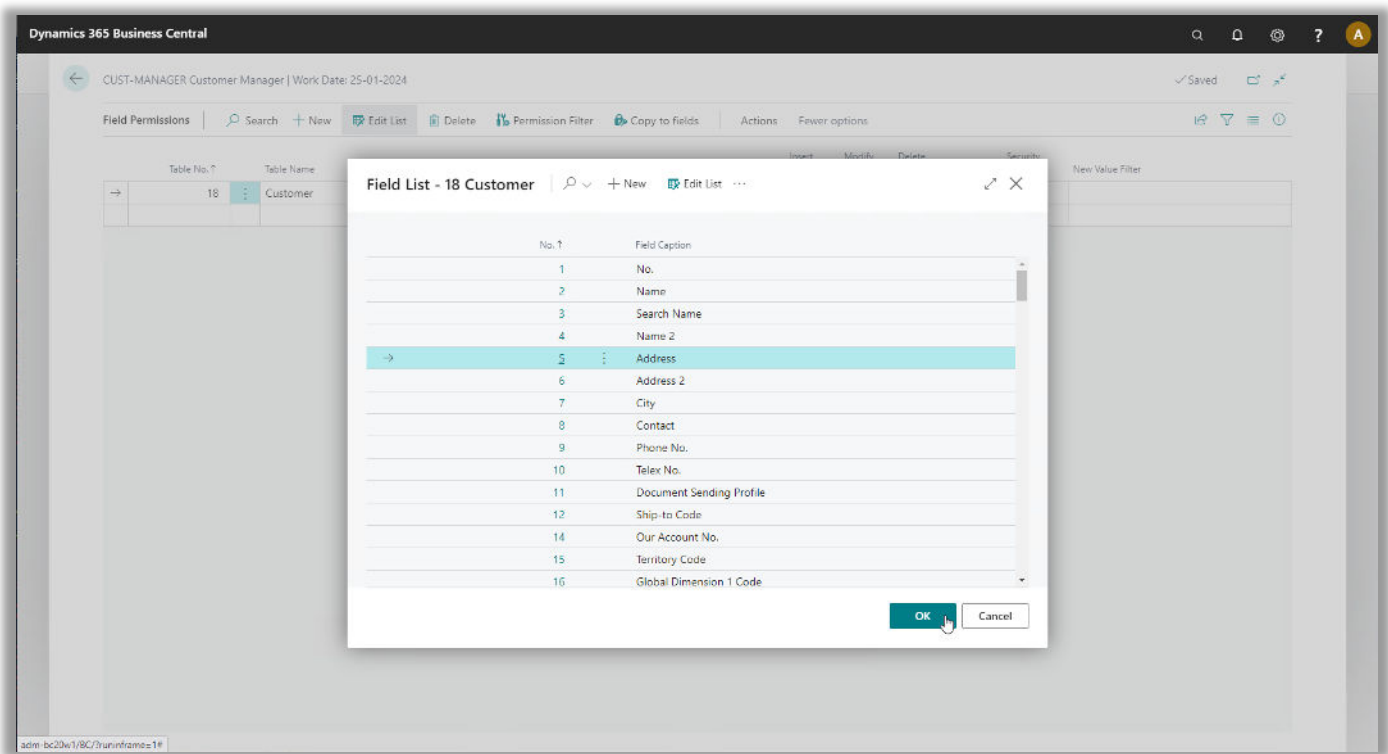
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Copy to fields

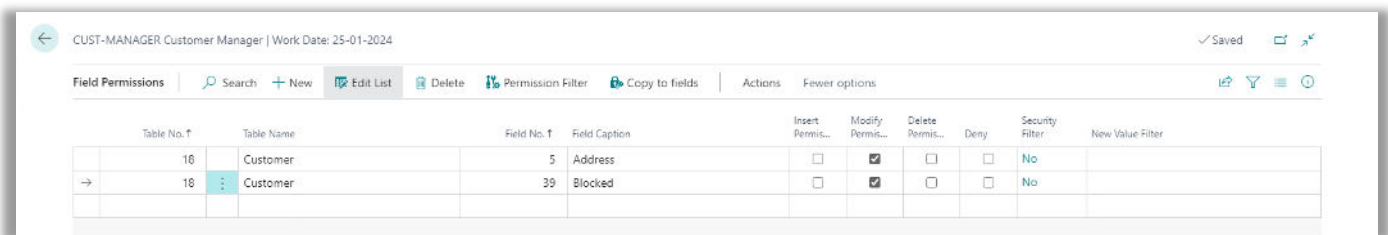
The “Copy to fields” action button makes it easy to copy a permissions definition already set to one or more fields.



An example is if you have set up Modify Permissions for one field and you want to grant the same permission to other fields.



Press “Copy to fields” and select one or more fields before clicking OK. Then the new Field Permission lines are inserted for every selected field.



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Initial Values

Besides granting or denying access to tables and fields, ADM can ensure that a new record in a table will have specified initial values set, when a record is created.

Enter what new value a given field in a chosen table should be filled in with on creation of a brand-new record.

Table No. ↑	Table Name	Field No. ↑	Field Caption	New Value	Validate	Filter
→ 18	Customer	39	Blocked	All	<input checked="" type="checkbox"/>	No

The initial value displayed here, is ensuring that field 39 Blocked in table 18 Customer will be initialized with new value "All" when inserting a new customer record.

Table No.	Enter number of the table for which the initial value is applying to.
Table Name	Name of the selected table. Not editable.
Field No.	Select the field number to define the field to be set up.
Field Caption	Name of the selected field. Not editable.
New Value	The value being the initial value.
Validate	Select this check box if the validation code on the field has to be activated when entering the "New Value" into the field.
Filter	Showing if a filter has been defined. Not editable.

Filter

You can set up a filter limiting the current Initial Value rule to a certain group of data. Select one or more fields, then set the desired filter on the field.

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Confirm Changes

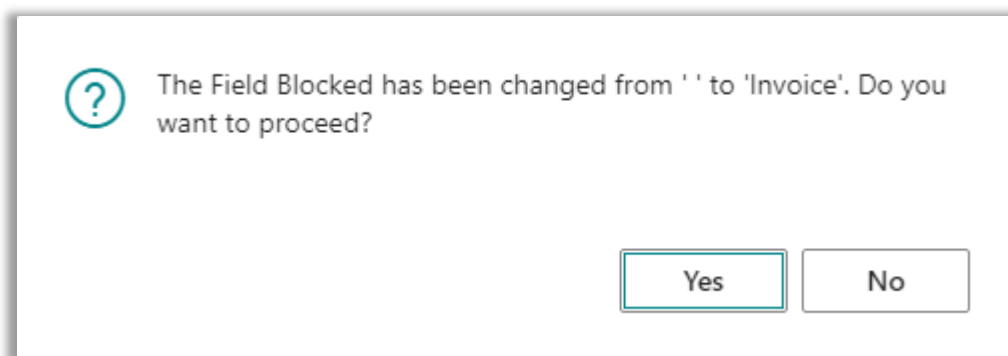
Helping to make sure the correct value is entered in a specific field, a field change can be notified with a confirm statement, making the user aware of what change he or she is making. First when confirming the change, the new value is written into the field.

Press “Copy to fields” and select one or more fields before clicking OK. Then the new Field Permission lines are inserted for every selected field.

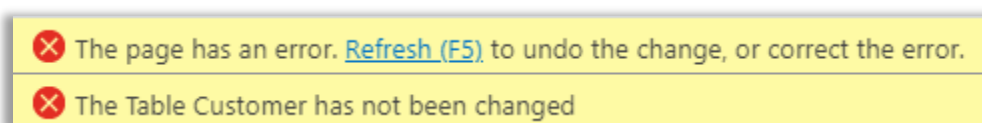
Table No. ↑	Table Name	Field No. ↑	Field Caption	Filter	Confirm Change	Allow Change From Blank	Object Type	Object ID
→ 18	Customer	39	Blocked	No	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Codeunit	0

Setting “Confirm Change” on field 39 Blocked on table 18 Customer is making a confirm statement occur when changing the field.

Table No.	Enter number of the table for which the permissions are applying to.
Table Name	Name of the selected table. Not editable.
Field No.	Select the field number to define the field to be set up.
Field Caption	Name of the selected field. Not editable.
Filter	Showing if a filter has been defined. Not editable.
Confirm Change	Select this field to activate the confirm statement.
Allow change from blank	Select this field to allow any changes when the field is not filled in yet.



The user must confirm the change before it is committed. If you do not accept the change, the error message below will be displayed. Refresh the page.



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Extendable build in options

For special handling of the user experience or for extra handling of data combined with the “Confirm Change” option, it is possible to add customized functionality to Advanced Data Management. Customizations to be performed when confirming the change set up, must be placed in a report or in a codeunit. This object is to be defined in the Confirm Change setup.

For using the settings provided with the fields “Object Type” and “Object ID” the objects to be used must be available by an extension extending Advanced Data Management.

Object Type	Type of the object to be run when confirming change. Valid object types are Report or Codeunit.
Object ID	Number of the object to be run when confirming change.

Filter

You can set up a filter limiting the current Confirm Change rule to a certain group of data. Select one or more fields, then set the desired filter on the field.

Show Change Log Entries

Easy access to watch Change Log Entries when you want to track changes already performed in the field you have selected. That is if Change Log is activated.

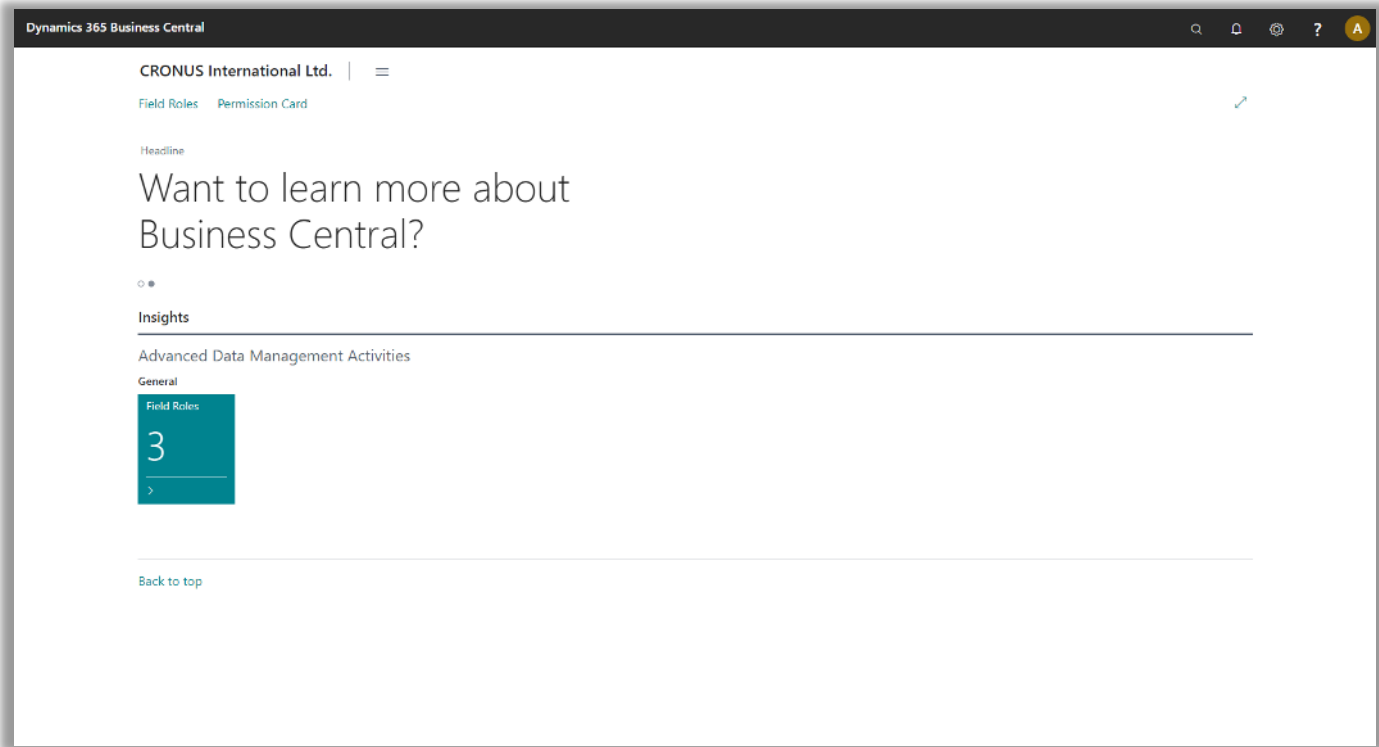
From the Change Log Entries list you are provided an easy access to Change Log setup to use if you wish to activate tracking of changes from now on.

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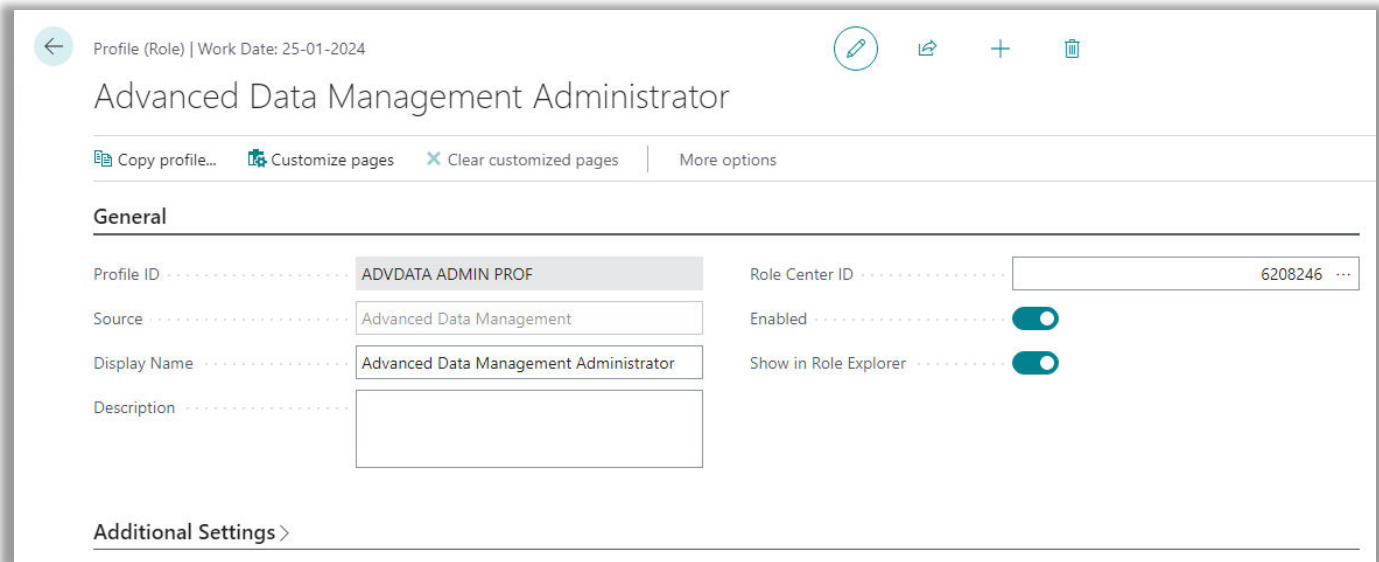
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ROLE CENTER

Advanced Data Management provides a role center named *Advanced Data Management Administrator*.



The role center is giving you an overview of Field Roles and Role ID's and easy access to ADM setup.



You can access these shortcuts from the role explorer if you have set "Show in Role Explorer" in the Profile (Role). For daily use this is much more useful than the Advanced Data Management Administrator role center itself.

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PERMISSION CARD

Use the Permission Card to get an overview of a user's access permissions.

Search for Permission Card in the search field or access the Permission Card from the role center.

The first thing you must do, is to set "User ID Filter" and "Table ID Filter" in the *Filters* section of the page. Then press the *Show Permissions* action button. A list of permissions on tables will appear.

The screenshot displays the 'Permission Card' interface for the work date 25-01-2024. It includes a 'Filters' section with 'User ID Filter' set to 'ADMIN' and an empty 'Table ID Filter'. Below the filters are buttons for 'Show Permissions', 'Show Change Log Entries', and 'More options'. The main table lists permissions for various tables and fields, with columns for Table Name, Field No., Field Caption, Role ID, Read Permission, and Insert Permission. The 'Item' table is highlighted. Below the table is a 'Permission subform' with a 'Manage' button and a filter section. The subform currently shows '(There is nothing to show in this view)'.

Table Name	Field No. ↑	Field Caption	Role ID	Read Permission	Insert Permission
Customer	39	Blocked			
Customer	5	Address			
Customer	39	Blocked			
	0		SUPER	Yes	Yes
Customer	0		XTRA	Yes	Yes
→ Item	0		XTRA	Yes	Yes

The more specific user setup the user has, the more lines will appear. The duration of calculating the permission sheet is reflecting the complicity of the setup.

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