# Manual

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**Four-Eyes Approval** 

APPROVAL SYSTEM
TO PREVENT ERRORS AND FRAUD

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#### INTRODUCTION

To manage changes in a few master data tables in Microsoft Dynamics 365 Business Central, ProFacto is offering an approval management system, where changes in one or more of the included tables will be logged, and an approval has to be fulfilled before the change is ready for use.

The tables handled by approval management are:

- G/L Account
- Item
- Bank Account
- Customer
- Customer Bank Account
- Vendor
- Vendor Bank Account
- Dimension
- Dimension Value
- ECO Entry

You only need to set up the Four-Eyes Approval. Select the master data tables you want to be handled by the approval management system. Then the system is ready to use.

Changes will be detected automatically and these will be logged in the Approval Log. Get an overview of changed records in the *Four-Eyes Approval Log*.

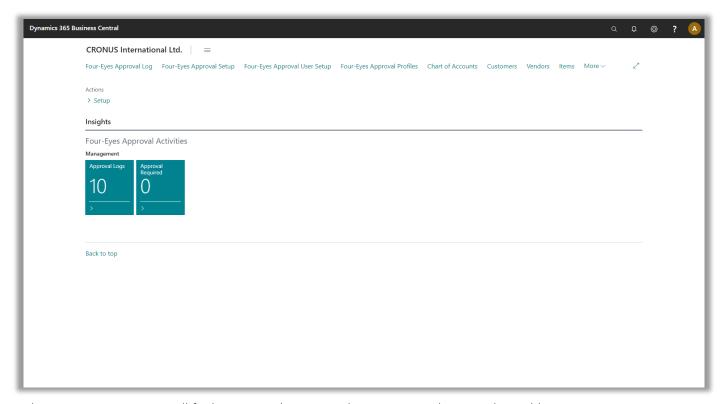
From each master data card, you will be able to view the changes on the specific record by clicking "Show changes". This action button is available on all relevant card pages.

#### REQUIREMENTS

This product can be installed as an extension in Microsoft Dynamics 365 Business Central.

#### FOUR-EYES APPROVAL ROLE CENTER

The best overview of the available functions in Four-Eyes Approval are present in the role center. Here you will find easy access to the Four-Eyes Approval definitions and functions.



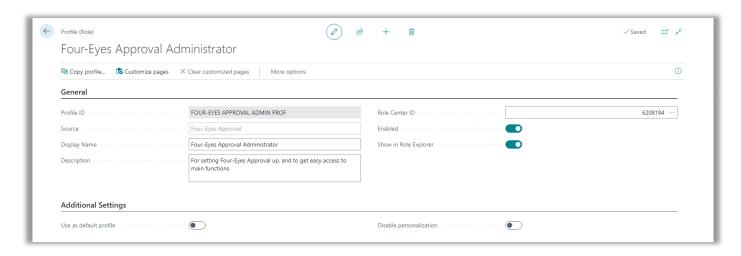
In the navigation area you will find access to the Approval Log, Setup and master data tables.

The provided role center is not the one you will use in daily use. You will have more use of the access found through the role explorer which is holding the same access points as found in the navigation area of the role center.

Access the role explorer by clicking on the three horizontal lines right next to the company name on the role center. Here you can access all links provided by profiles which are set up with the "Show in Role Explorer" option.

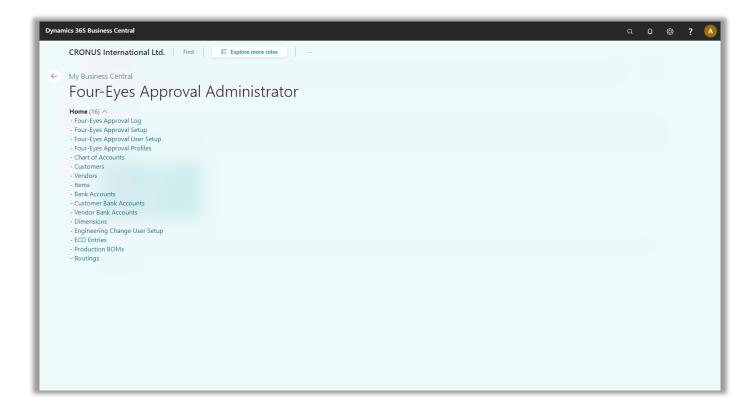
# **Role Explorer**

We recommend selecting the "Show in Role Explorer" option in the Four-Eyes Approval Administrator profile.



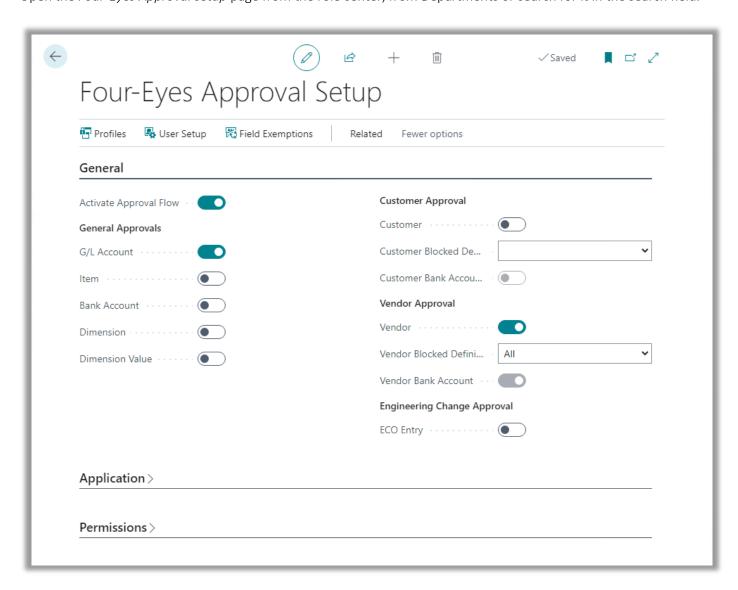
Then you will be able to access relevant pages directly from the Role Explorer. Getting to know the page names, you can search for these in the search field too.

Role Explorer access is the easy way to get an overview of main pages in Four-Eyes Approval. When the option "Show in Role Explorer" is set on the profile, the links provided are accessible whatever role center you are using.



#### Select master table areas

Open the Four-Eyes Approval setup page from the role center, from Departments or search for it in the search field.



Here you select what master data to be handled by approval management.

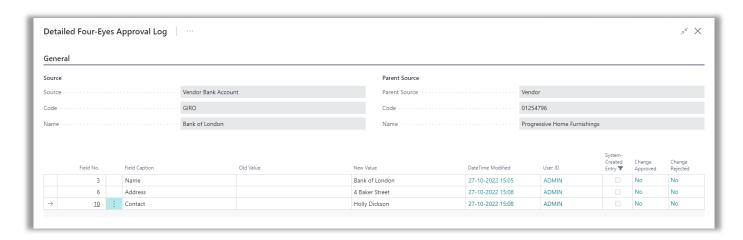
Also mark the "Activate Approval Flow" field to enable approval management. Now changes in the selected tables will be logged.

"Customer Blocked Definition" and "Vendor Blocked Definition" are used to set what blocked level to use when blocking a record for pending approval. In these two tables blocked is not a simple checkbox.

### **Changes are logged**

Changing data in a Vendor Bank Account will be logged. When logging the master data card will be blocked. After the changes are logged, the user will be able to see the changes by clicking "Show changes" on the Bank Account Card.

ିମ୍ମ Show changes



Here the latest changes are displayed. By default, the changes since the latest approval or rejection are shown. The user who has made changes cannot approve changes made by him or herself. This is a task for any other user. Field changes still not approved or rejected are displayed.

In the "Show changes" page three buttons are available.

- Approve Approving changes The Blocked field will be rolled back.
- Reject Rejecting changes The Blocked field will be rolled back. Changes will be rolled back.
- Show all Show all changes logged for the current record. Including approved and rejected changes.

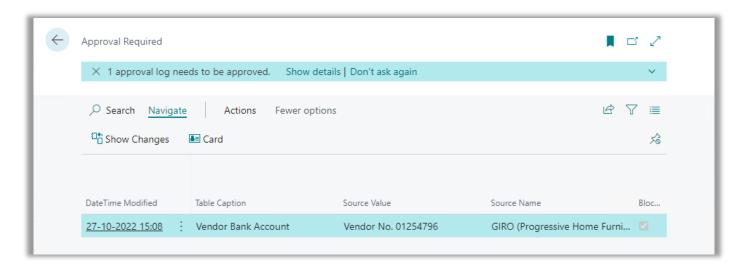
When approving or rejecting, the Blocked field will be left in the state as before the approval sequence was initiated.

A similar functionality is available on all the included master data cards.

#### **Overview**

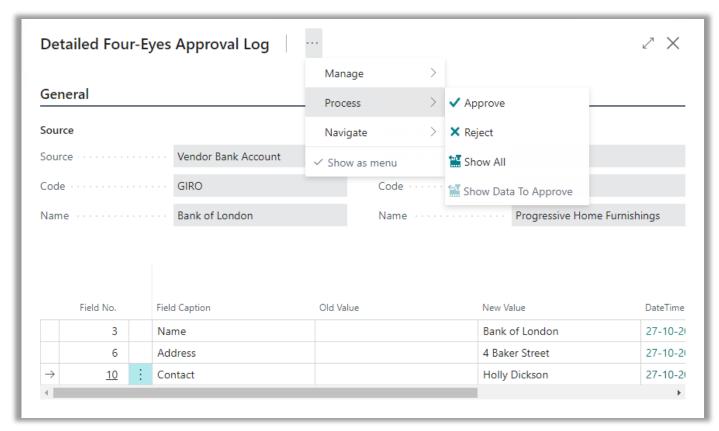
You will be able to get an overview of the logged changes in the *Four-Eyes Approval log*. Access this from the Four-Eyes Approval role center or from the Role Explorer or use the search field.

Here log entries for all tables included found. As a default only not processed (approved or rejected) log entries are displayed



By clicking the "Show changes" you will access the Four-Eyes Approval log details. The same as shown from the card pages.

The log details for the selected approval log entry will be listed in the Detailed Four-Eyes Approval Log page.



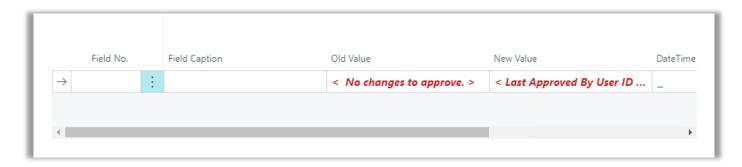
For users allowed to approve the change the *Approve* and *Reject* options are active.

Functions available in the *Detailed Four-Eyes Approval Log* page are:

- Approve Approving changes The Blocked field will be rolled back.
- Reject Rejecting changes The Blocked field will be rolled back. Changes will be rolled back.
- Show all Show all changes logged for the current record. Including approved and rejected changes.

When approving or rejecting, the Blocked field will be left in the state as before the approval sequence was initiated.

If there are no changes to be approved, a "No changes to approve" notice is displayed.



### Field Blocked usage

#### Table blocked by approval system

When changes in the master data tables included in the approval management are made, the field Blocked will be set at the time the changes are logged.

Blocked fields of type Boolean (yes/no fields) will be set to "Yes" (TRUE), and blocked fields of type option will be set to "All" during the change logging procedure.

A blocked field set by the approval system, which indicates that the changes have to be approved or rejected, can be changed by approving or rejecting only.

After approving or rejecting the Blocked field is no longer marked "Yes" or "All".

#### Changing field blocked manually

A user can set the Blocked field manually. The same user who blocked the master data manually can unblock the same master data without approval. However, the change of the Blocked field will still be logged.

Unblocking a manually set blocking is possible for another user. This change has to be approved by another user before the field Blocked is cleared.

When unblocking a manually set blocking the following message appears:

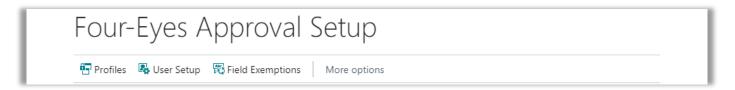
It is not possible manually to unblock when the Blocked field has been set by the system during logging other changes.

Then the blocking has to be removed by either approving or rejecting the changes.

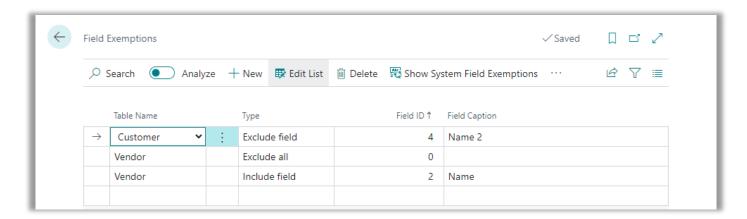
Manually unblocking is not allowed when changes are to be approved. Please use "Show changes" to approve.

### **Field Exemptions setup**

From the Four-Eyes Approval Setup page you can define fields to be excepts from approval.



You can enter several lines to define exactly what fields you want to be disregarded when the system is checking for approving changes.



Enter a line for a field you want not to be controlled, even if it is in one of the tables managed by Four-Eyes Approval. Select table, select type 'Exclude field' and enter the field number of the field to exclude.

Example shown above: Field No. 4 "Name 2" in table Customer is excluded.

If you want to manage only a single field or only a few fields within a table, you can select the table, then choose the type 'Exclude all' and leave the Field ID to be undefined: 0. After that add one line with type 'Include field' for each field you want to be managed by Four-Eyes Approval.

Example shown above: Table Vendor is defined to exclude all, and then a second line including field no. 2 "Name".

It is not allowed to use types 'Include field' and 'Exclude field' within the same table ID.

It is not allowed to use 'Exclude all' and 'Exclude field' or 'Include all' and 'Include field' in combination, since this is breaking the logic of the setup.

#### **System Field Exemptions**

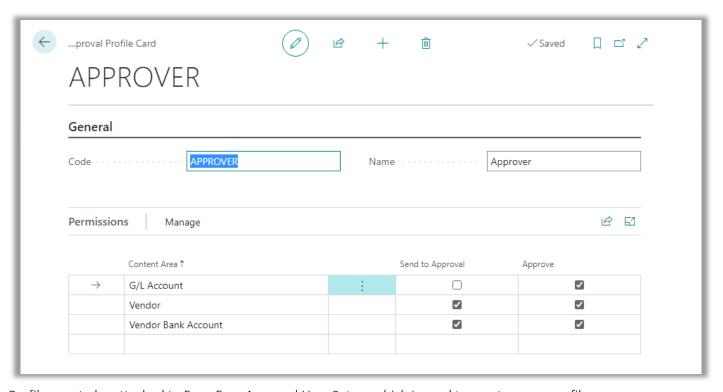
Some field types are not covered by the approval process and a selection of fields are excepted by default. You can see a list of these fields in "Show System Field Exemptions".

## PROFILES AND USER SETUP

#### **Profile**

Applying Four-Eyes Approval Profiles to Four-Eyes Approval User Setup it is possible to define if users are permitted to send changes to approval and to approve changes.

For a certain profile you can select areas to be granted permissions to and define if the permissions include "Send to Approval" and/or "Approve".

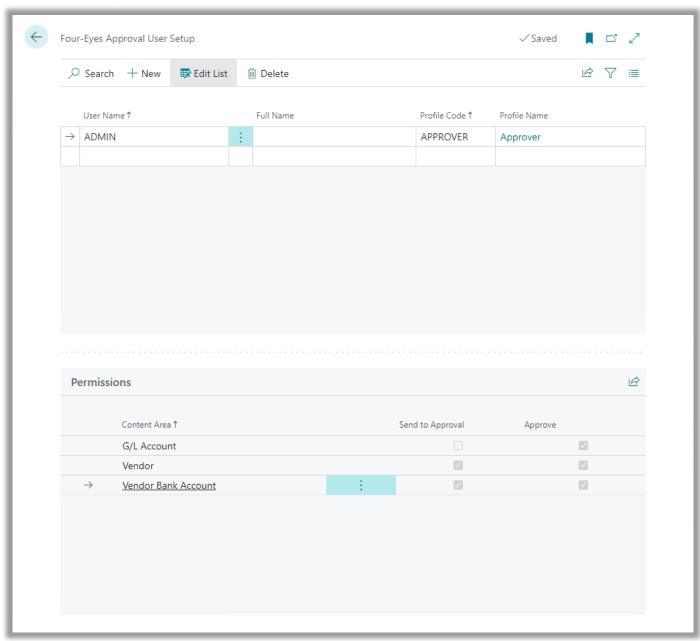


Profiles are to be attached to Four-Eyes Approval User Setup, which is used to grant users a profile.

You need to have a profile for every selection of access rights meant for a single user or for a group of users having identical permissions regarding the use of Four-Eyes Approval.

# **User Setup**

For every user one Four-Eyes Approval Profile can be set. Different users can have the same profile, but a user cannot have more profiles attached.



#### **ENGINEERING CHANGE**

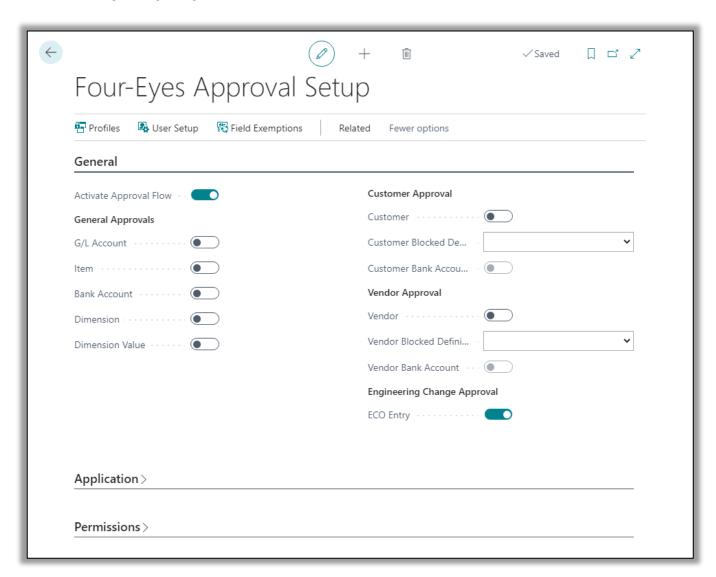
# The Engineering Change option

As an addition to Four-Eyes Approval the Engineering Change Approval offers the users a Four-Eyes Approval option securing validation of changes in Production BOM Version and in the Routing Version.

Attach the permission set EC USER "Engineering Change User" to users who have to work with Production BOM definitions and approval.

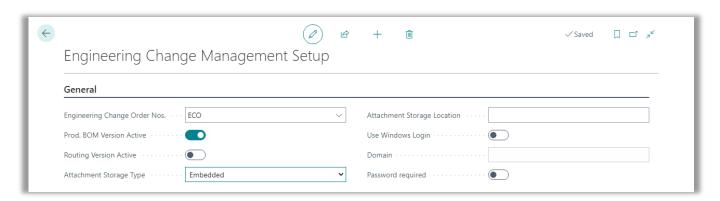
## **Four-Eyes Approval Setup**

Activation of the Engineering Change Approval is done by selecting "ECO Entry" in Four-Eyes Approval Setup. ECO is short for Engineering Change Order.



# **Engineering Change Management Setup**

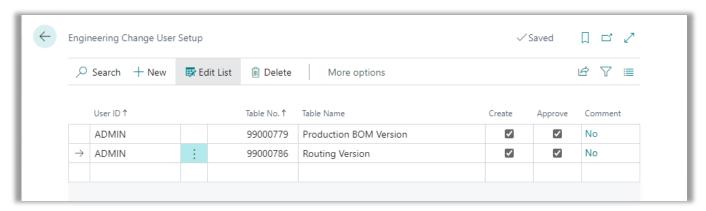
You must set up the areas to cover by the Engineering Change and also state if password is required. Search for Engineering Change Management Setup in the search field.



Engineering Change Order Nos. Select number series to be used by Engineering Change. Prod. BOM Version Active Engineering Change interaction is activated for managing Production BOM Versions. **Routing Version Active** Engineering Change interaction is activated for managing Routing Versions. Embedded: Stored inside the database. Attachment Storage Type Disk File: Stored in external disk files. Not recommended for cloud installations. Path for where files are stored. Attachment Storage Location Use Windows login Set if Windows logins are to be used. Domain Domain name. Password required Activate this option if you want to request a password whenever a change order is to be processed.

# **User setup**

Define what tables the users are allowed to create and approve Engineering Change Interactions. You have to add tables according to which of the two supported tables every single user must be able to handle through Engineering Change.



User ID

Select user for which a permission is to be set up.

Enter "Table No." for the table permission to set up.

Supported tables are:
Table 99000779 Production BOM Version
Table 99000786 Routing Version

Create

Mark "Create" field if the user should be able to create an EC Interaction.

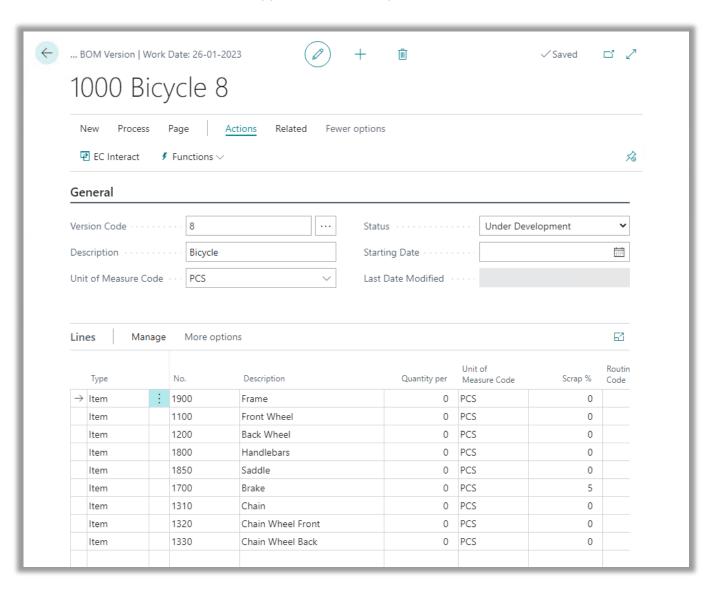
Approve

Mark "Approve" field if th user should be allowed to approve an EC Interaction.

#### **Production BOM and Production BOM Version**

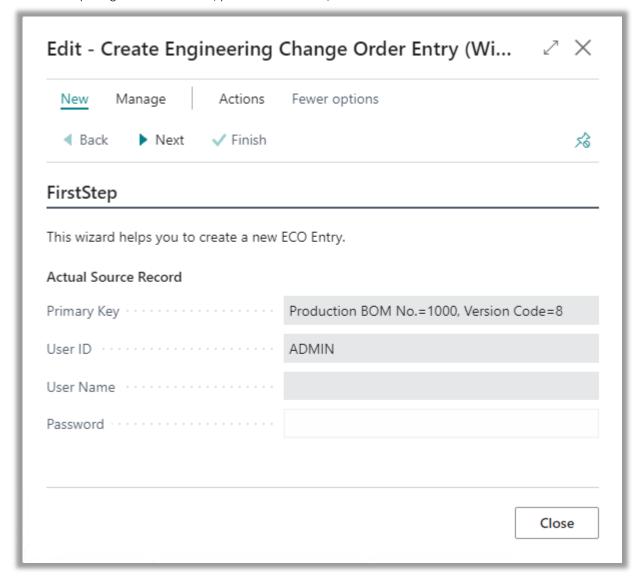
From the production BOM you will find the Production BOM Version card. The BOM Version is defined here. The approval of the BOM is handled through Engineering Orders. The state of an Engineering Change Order (ECO) is to be seen in attached ECO Entries.

Here there will be related ECO entries if already processed, otherwise you hit the "EC Interact" function in the Actions menu.



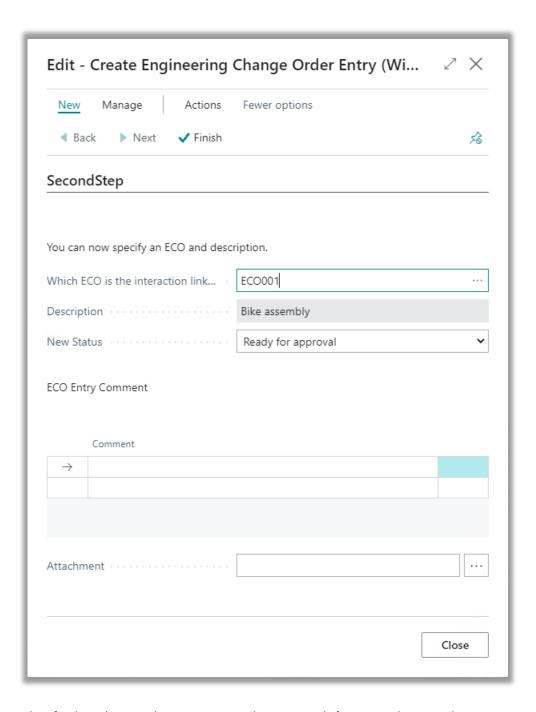
Here you can create a new ECO Entry, or if an ECO Entry already exists the ECO Entry can be approved or rejected. If your user is set up for having password demanded, you have to enter the password to proceed.

Hint: When opening the Actions menu, pin the actions Back, Next and Finish for easier access.



Enter Engineering Change Order code according to the given change order the change of the BOM is following. Look up the list of valid ECO codes to attach the Engineering Change Order from the list of orders.

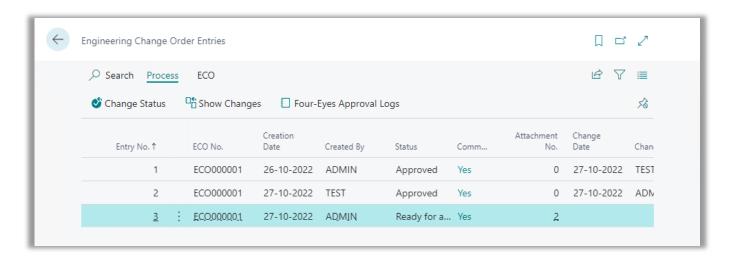
Add comment lines if you wish. Attach a file if further documentation is needed.

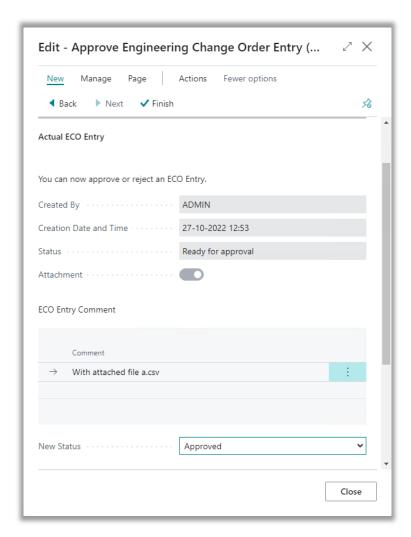


When finishing the wizard, an ECO Entry with status *Ready for approval* is created.

Approving or rejecting ECO Entries are done as handling other topics that requires acceptance from Four-Eyes Approval. Browse to ECO Entries and approve or reject an entry.

You can use the "Change Status" button to change status using a wizard if you want to examine the comments and an attached document if available.





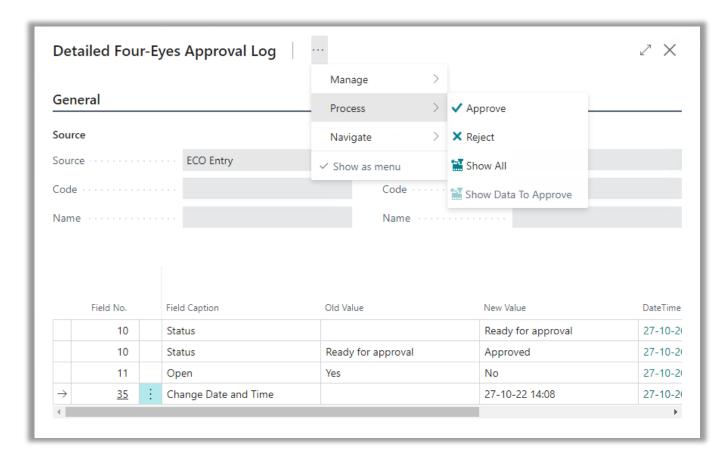
Set "New Status" to *Approved* if you want to approve the ECO Entry, set "New Status" to *Rejected* if not accepted. Complete your choice by clicking Finish.

If "ECO Entry" is set up for approval in the Four-Eyes Approval setup, the ECO Entry is still to be approved, since the change from *Ready for approval* was changed to *Approved* from the Four-Eyes Approval log.



From the Navigate select "Show Changes" to access the Approval Log page.

Here you either approve or reject the changes using the normal Four-Eyes Approval verification procedure.



#### APPROVAL MANAGEMENT AND ADVANCED DATA MANAGEMENT

If Four-Eyes Approval functionality is setup for a table, the record is blocked if a user makes some changes. To unblock the record another user needs to approve or reject this. It is not possible for the user who made the change to unblock the record.

### **Setting up restrictions**

If we would like to set up who are allowed to unblock the record, then we need to install ProFactos **Advanced Data Management** extension. Here it is possible to set up permission on field level.

Advanced Data Management is available on AppSource. Visit our homepage for more information and documentation.

#### Example:

If we setup Four-eyes approval on Customer, then a customer is blocked if we make changes to this customer. Everyone, except the user who made the last change on the customer, can unblock the customer if they are allowed to modify customers.

If we have a group of people that can modify customers, but we would like to limit this further the number of people who can approve the changes, then this can be setup using Advanced Data Management.

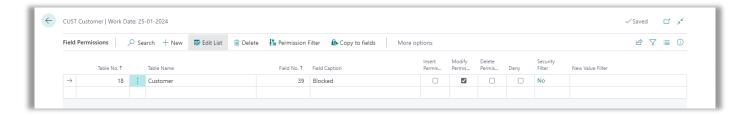
#### Field Roles

Example of setting up permission in Advanced Data Management for Customer First, we have to create a Field Role.



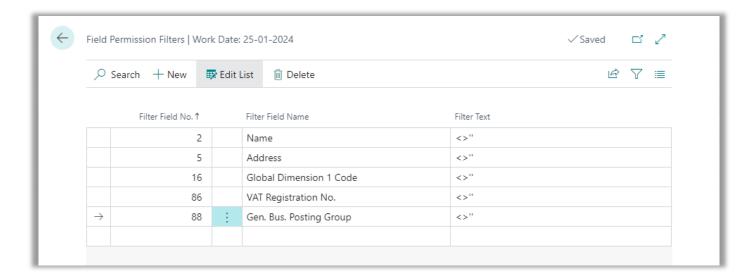
#### **Field Permissions**

Then, we setup permission for the field Blocked on customer.



We only want to restrict who can approve the customer changes, the one who can unblock the customer. Therefore, we need to setup a filter saying that this Field Role only applies to blocked customers. This is done by setting a filter on Blocked for All.

#### **Field Permission Filters**



To activate this Field Role, we need to add users (can be a user group) to this Field Role.

#### **TROUBLESHOOTING**

In some cases, data in the database could cause unexpected locking of records, that the normal approval or rejection cannot handle. If this happens you might find a solution in this chapter.

### **Approval Log Maintenance Tool**

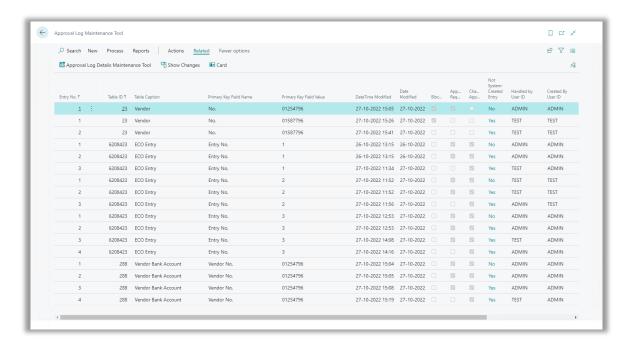
The Approval Log Maintenance Tool gives the administrator of Four-Eyes Approval a possibility to clean up invalid or unexpected data.

In short terms the two pages is granting access to delete an Approval Log entry including Detailed Approval Log entries. You find the pages by searching for *maintenance tool*.

*Important:* It is recommended to access data through "Approval Log Maintenance Tool" since here the access to Details are filtered on single Approval Log entries. From "Approval Log Details Repair Tool" you are presented all detailed entries at once with limited overview of which parent Approval Log they belong.

To enable the tool, the user profile must be set to 'FOUR-EYES APPROVAL ADMIN', even if it is for a short time. Else there is no access to the feature making deletion of undesired entries possible.

Even granted access, the user will be met with a warning about being careful when deleting entries.



The page is very similar to the normal Approval Log List, only two action buttons are added.

Delete Log The log entry is deleted. Detailed entries included.

Be careful. After deleting there is no regrets.

Approval Log Details Maintenance Tool Access to the second page showing Details in the tool, but from

here with a filter on the current Approval Log entry.