



CadConnect

1 — Last update: 25 January 2024

NAVEKSA A/S

Table of Contents

1. Before you begin	4
2. Why CadConnect	5
3. QUICK START CadConnect.....	10
4. VIDEOS – Functional views – CadConnect	11
5. How to run CadConnect	13
5.1. The CadConnect main menu	14
5.2. Setting up CadConnect	15
5.3. How to import CAD data.....	16
6. How to work with CAD data input	17
6.1. Work with CAD Excel data	18
6.1.1. Data structure for files to be imported in CadConnect	19
6.1.2. Excel data field format to be used in CadConnect	24
6.1.3. Load Excel product data into CadConnect	26
6.2. Work with other data input methods	33
6.2.1. Copy a product from BC.....	34
6.2.2. Add a new product by keying manually	36
6.2.3. Input of an XML-file with a predefined format	37
7. How to work with CadConnect	38
7.1. Work with CadConnect functions.....	39
7.1.1. Using line colouring in CadConnect	40
7.1.2. Using the Insert line Menu function	42
7.1.3. Using the Modelling line Menu function	44
7.1.4. Using other line Menu functions – Renumber, Delete a.o.	45
7.1.5. Using comments in CadConnect	48
7.1.6. Using cost calculation when working on a construction	49
7.1.7. Additional CadConnect header functions.....	50
7.1.8. Using Header screen – Data Field definitions.....	51
7.1.9. Using CadConnect – Detail screen – Data Field definitions	53
7.1.10. Using CadConnect inquiry options	58
7.1.11. Using the CadConnect create items, BOM's and routings in BC	59
7.1.12. Using CadConnect with version control	62
7.1.13. Using Item Attributes.....	64
7.1.14. Delete and delete all lines function.....	68
7.1.15. Using Advanced templates.....	69
7.1.16. Importing routings and operations in CadConnect.....	73
7.1.17. Simulate cost calculation when working on a construction.....	75
7.1.18. Creating BC quotes and orders from CadConnect.....	77
7.1.19. Export CadConnect data to Excel.....	80
8. Additional.....	82

8.1. CadConnect rules & logic..... 83

1. Before you begin

Before you begin

You operate this manual by:

- Using the TOC – Table of content
- Expand / Collapse topics in table of content
- Using the Next / Previous at the end of each topic
- Using the subject direct links for further information
- When you hoover over a picture and see the + sign or a hand, clicking will enlarge the picture
- Using the Print subject function
- Using the Print manual function
- Using the seach bar
- Click on [NAVEKSA A/S](#) on the blue top line to switch to another manual
- Sending your feedback to NAVEKSA if you think something should be improved

Recommended background materials to explore:

- Microsoft Dynamics 365 Business Central manufacturing manuals available on Microsoft customer/partner source
- Scott Hamilton: Managing your supply chain using Dynamics NAV
- Peik Bech-Andersen: Manufacturing for Business Central

NAVEKSA solutions are all Microsoft certified applications (CfMD) working on top of Dynamic 365 Business Central Cloud and OnPremise versions.

Copyright NAVEKSA 2023

Throughout this document, the following abbreviations will be used.

BC = Dynamic 365 Business Central

BOM = Production Bill of Material

2. Why CadConnect

Why CadConnect

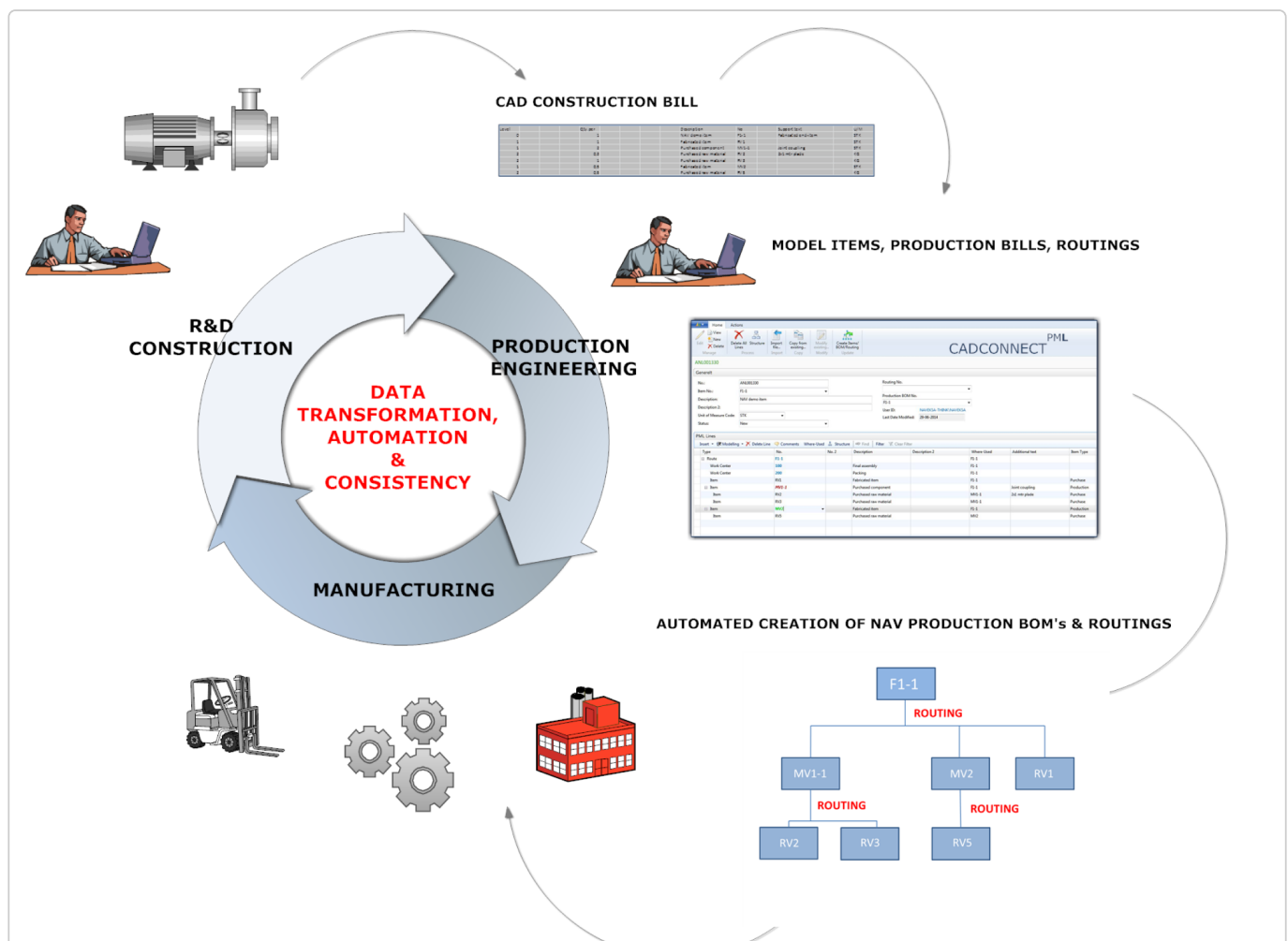
The main purpose is to read a construction bill of material file generated from a CAD system into the CadConnect solution where the user (the production engineer) starts his work adapting the construction data into a format which he sees is the optimal way to produce the item.

A secondary purpose is to use an existing BC product and turn this into a new similar product in a same-as-except manner.

The solution can also be used creating new products by just adding manually, in CadConnect

No matter what background material is used, you can work with the full product on one screen, whilst avoiding the standard BC way of doing everything one level at a time with little transparency of what you are doing.

Here you see an overview of the traditional way from R&D to production engineering to manufacturing:



From construction bill of materials to production bill of materials

The user is able to re-structure (modeling) a CAD construction bill of material into more or fewer

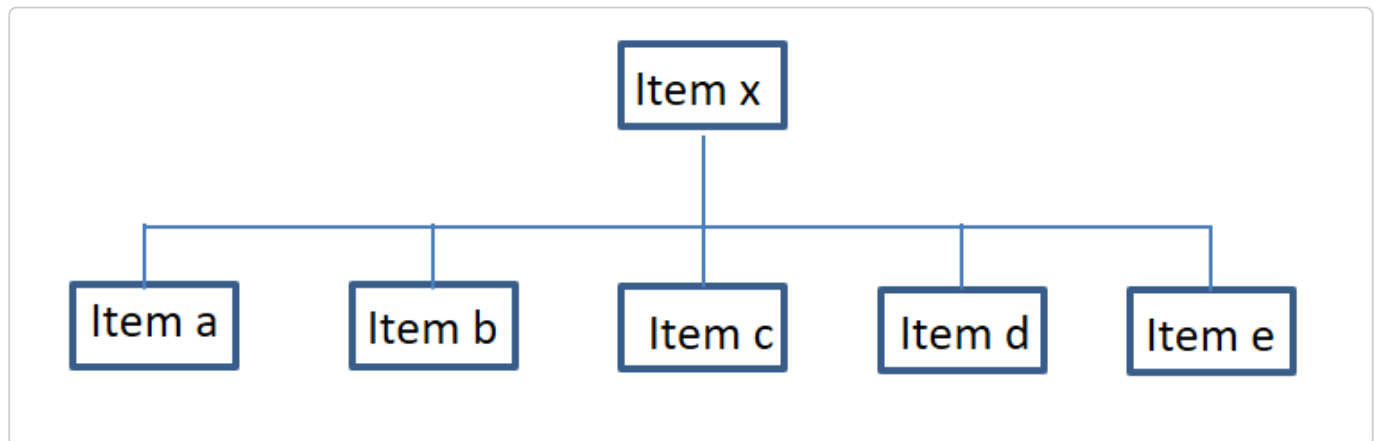
production bill of material levels, suiting the production way of representing the product.

The modelling process can be supplemented by adding / changing / deleting components, but also adding production processes (routings) to the produced items.

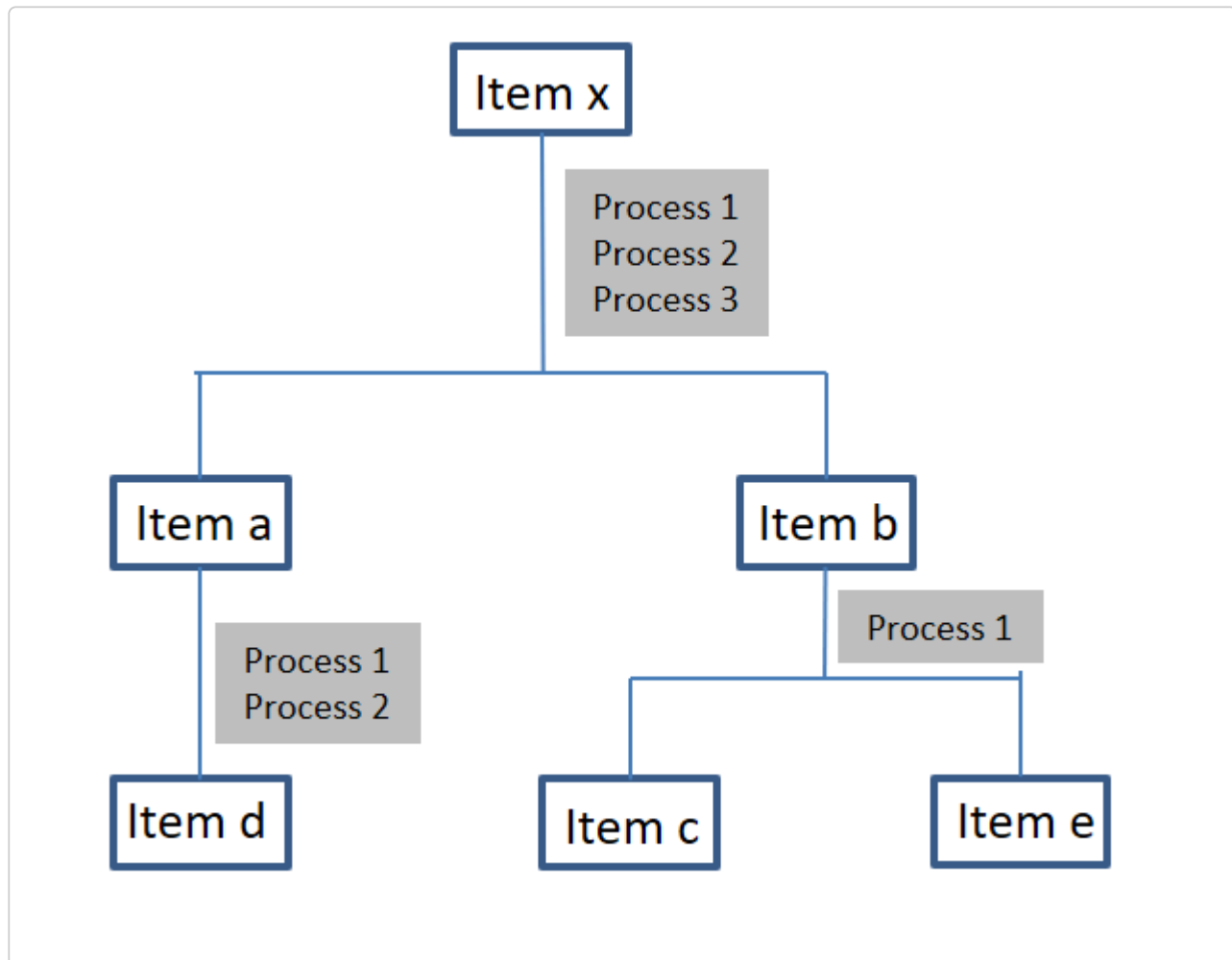
Routings can be imported along with BOM, built manually step-by-step, and/or copied in from existing routings in BC.

Schematically it looks like this:

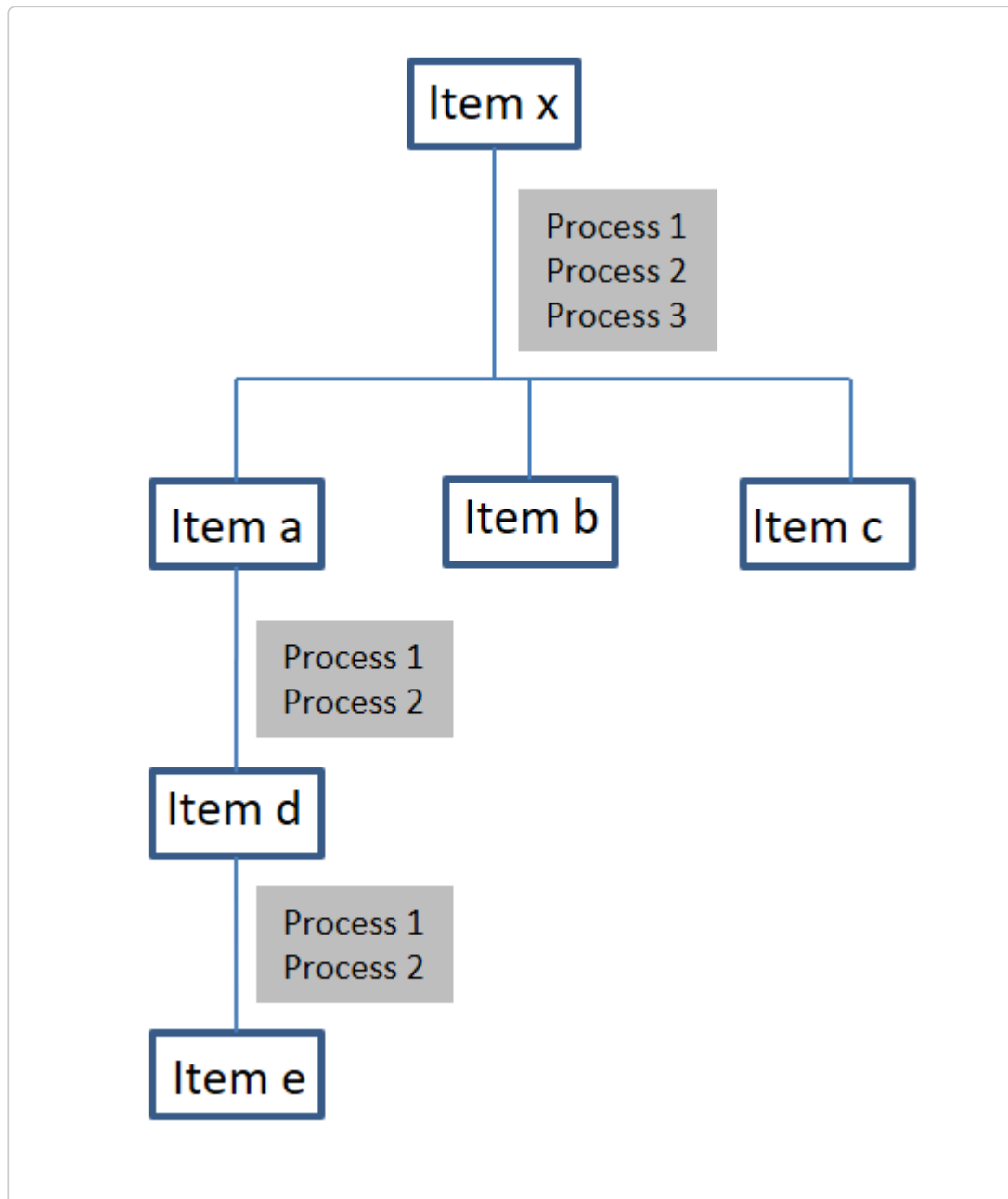
1. Usually the CAD construction bill of material is a kind of a flat structure:



2. The production engineer perhaps models the construction bill into this production bill of material and add processes:



3. Or perhaps the production engineer models construction bill into this production bill of material and add processes:



Automatic Data creation in BC

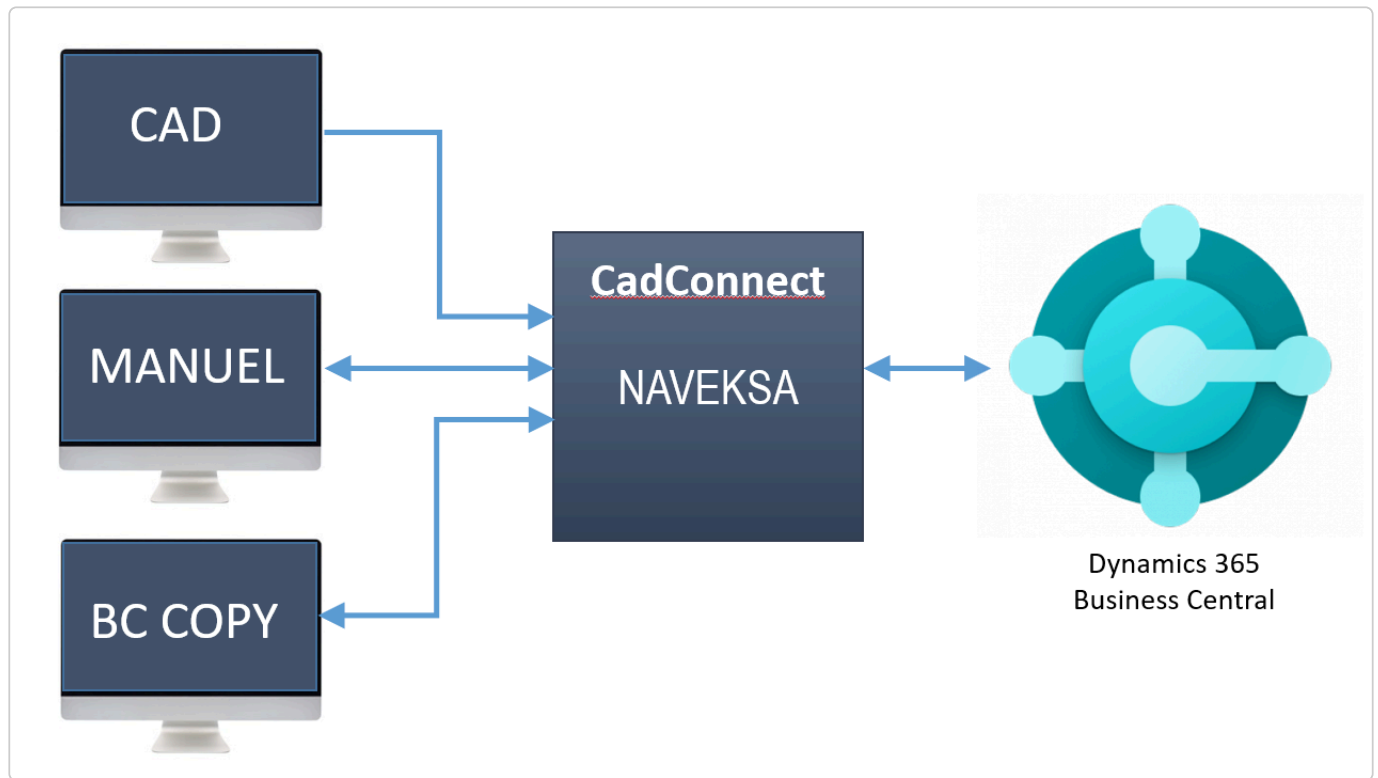
When the user is satisfied with the work he clicks on the “Create items/BOM’s and routings” function key, and items, BOM’s, alternatively assembly BOM’s and routings are created automatically in BC.

More than just a CAD connection

Perhaps the user in another situation wants to use an existing BC construction by modifying this into a variant or something which differs slightly from a current construction.

It is then possible to read (copy) data from BC, change and re-model these data, and create a new variant product in BC.

The opportunity to build a product in Cadconnect without using a CAD system, or other data as input, also exists.



3. QUICK START CadConnect

QUICK START CadConnect

1. 1 Reading Why CadConnect is a must. Do this now [Why CadConnect](#)

4. VIDEOS – Functional views – CadConnect

VIDEOS – Functional views – CadConnect

VIDEOS – Functional views – CadConnect

4 videos with America, English, German and Danish speak and subtitles.



**Want to learn more about
NAVEKSA CadConnect?**




US – version – 3:08 min


Built for Microsoft Dynamics 365 Business Central



<https://player.vimeo.com/video/640266193>




**Want to learn more about
NAVEKSA CadConnect?**



UK – version – 3:08 min

Built for Microsoft Dynamics 365 Business Central



<https://player.vimeo.com/video/640266158>



Möchten Sie mehr über NAVEKSA CadConnect erfahren?



DE – version – 3:08 min

Für Microsoft Dynamics 365 Business Central entwickelt



<https://player.vimeo.com/video/640266131>

<https://player.vimeo.com/video/640266131>



Möchten Sie mehr über NAVEKSA CadConnect erfahren?



DE – version – 3:08 min

Für Microsoft Dynamics 365 Business Central entwickelt



<https://player.vimeo.com/video/640266131>

<https://player.vimeo.com/video/640266131>

5. How to run CadConnect

How to run CadConnect

Expanding this topic will show sub-topics for running CadConnect.

5.1. The CadConnect main menu

The CadConnect main menu

Assuming you have selected a CadConnect RoleCenter, CadConnect is started from the CadConnect menu choosing the menu item “CadConnect List”

If you are set up with another RoleCenter, Cadconnect can be selected by the standard BC search function.

The menu item “CadConnect – Variant” is used for working with CadConnect variants.

! CadConnect variants are easy to use in creating variant end-items – f.ex. adding special colours and other. This function is not to be compared with BC variant

The screenshot shows the NAVEKSA CadConnect main menu interface. At the top, the header includes "CRONUS Danmark A/S" and navigation links for "Product Design", "Capacities", and "Setup". Below the header, there are links for "CadConnect - List", "CadConnect - Variant", "CadConnect - Item Version", and "CadConnect - PrelItem". The main content area features a headline "Want to learn more about NAVEKSA CadConnect?" and a section titled "Activities". Under "Activities", there are two columns: "CadConnect" and "Design". The "CadConnect" column shows "CadConnect New" with a count of 25 and "CadConnect u... Development" with a count of 8. The "Design" column shows "Prod. BOMs un... Development" with a count of 0 and "Routings under Development" with a count of 0. On the right side, there is an "Actions" section with links for "+ Item", "+ Production BOM", "+ Routing", and "Reports".

5.2. Setting up CadConnect

Setting up CadConnect

Please inform yourself about the setup clicking here: [CadConnect setup](#).



It is very important that you familiarize yourself with the concept of using standard BC item creation templates before you begin.

5.3. How to import CAD data

How to import CAD data

[Please read further here: “](#)

6. How to work with CAD data input

How to work with CAD data input

Expanding this topic will show sub-topics for defining various CadConnect data input.




6.1. Work with CAD Excel data

Work with CAD Excel data

This topic is about to define the CAD output file and the subsequent load into CadConnect.

To work with Excel files for import, you must set the parameter “Standard Import Format” in the CadConnect Setup to the value “Excel”.

CadConnect Setup

 Attribute Setup  Dimension Setup | Automate  Fewer options

NAVEKSA - CadConnect 23.10.02.10

License Key ●●●●●●●●

General

CadConnect numbers CADC

CadConnect Surface Template %1-%2

Standard Import Format Excel

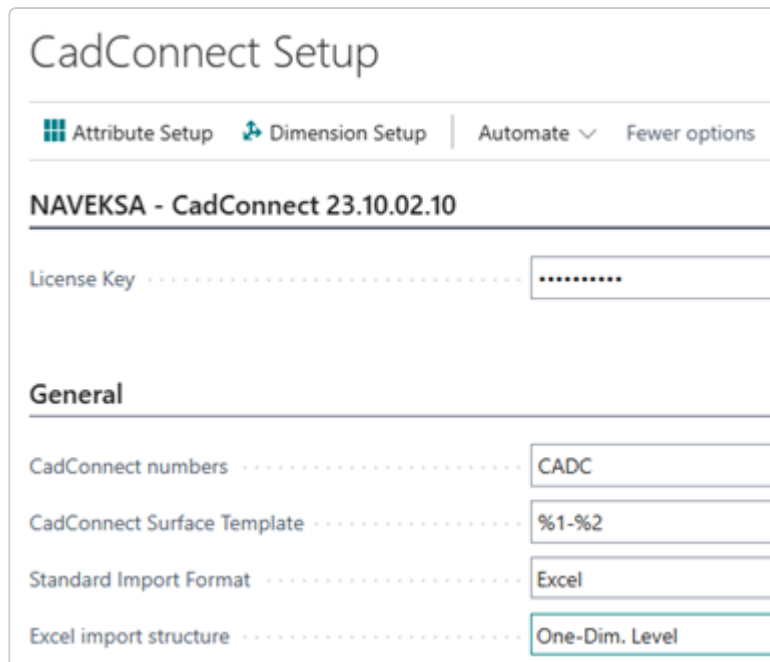
6.1.1. Data structure for files to be imported in CadConnect

Data structure for files to be imported in CadConnect

The import of Excel-files to CadConnect can handle 3 different file-layouts / structure.
Setup-Parameters and selections in the actual import must follow the chosen structure.

1. One-Dim. Level, Multi-Dim. Level or Parent/child

a. Excel import structure is set to One-Dim. Level.



The screenshot shows the 'CadConnect Setup' window. At the top, there are tabs for 'Attribute Setup' and 'Dimension Setup', along with 'Automate' and 'Fewer options' buttons. Below this, the title 'NAVEKSA - CadConnect 23.10.02.10' is displayed. A 'License Key' field is shown with a masked value. The 'General' section is active, showing several configuration options: 'CadConnect numbers' set to 'CADC', 'CadConnect Surface Template' set to '%1-%2', 'Standard Import Format' set to 'Excel', and 'Excel import structure' set to 'One-Dim. Level'.

NAVEKSA - CadConnect 23.10.02.10	
License Key	*****
General	
CadConnect numbers	CADC
CadConnect Surface Template	%1-%2
Standard Import Format	Excel
Excel import structure	One-Dim. Level

b. The excel file must include a Level-column, which defines the levels and relations between the lines in the file as in the following example.

If you do not have a column with Level-indications, you can still import your file. CadConnect will then set all lines to be on upper level 0.

	A	B	C	D	E
1	Level	Part Number	Description	Qty	
2	0	1000	Part 1000	1	
3	0	2000	Part 2000	3	
4	0	3000	Part 3000	2	
5	1	3001	SubPart 3001	1	
6	1	3002	SubPart 3002	1	
7	1	3003	SubPart 3003	1	
8	0	4000	Part 4000	1	
9	0	5000	Part 5000	1	
10	0	6000	Part 6000	1	
11	1	6100	SubPart 6100	1	
12	2	6110	SubPart 6110	1	
13	2	6120	SubPart 6120	1	
14	2	6130	SubPart 6130	1	
15	1	6200	SubPart 6200	1	
16	2	6210	SubPart 6210	1	
17	1	6300	SubPart 6300	1	
18					

c. In the import sheet, the Level column must be defined accordingly.

Column Definition

Specify which columns contains which data

Item Fields:

Level	<input type="text" value="A"/>
Item No.	<input type="text" value="B"/>
No. 2	<input type="text"/>
Description	<input type="text" value="C"/>
Description 2	<input type="text"/>
Additional Text	<input type="text"/>
Quantity	<input type="text" value="D"/>
	<input type="text"/>

2. Multi-Dim. Level

a. Excel import structure is set to Multi-Dim. Level.

CadConnect Setup

Attribute Setup
 Dimension Setup
Automate
Fewer options

NAVEKSA - CadConnect 23.10.02.10

License Key

General

CadConnect numbers CADC

CadConnect Surface Template %1-%2

Standard Import Format Excel

Excel import structure Multi-Dim. Level

b. The excel file must include a Position-column, which defines the levels and relations between the lines in the file

	A	B	C	D	
1	Pos	Part Number	Description	Qty	
2	1	1000	Part 1000	1	
3	2	2000	Part 2000	3	
4	3	3000	Part 3000	2	
5	3.1	3001	SubPart 3001	1	
6	3.2	3002	SubPart 3002	1	
7	3.3	3003	SubPart 3003	1	
8	4	4000	Part 4000	1	
9	5	5000	Part 5000	1	
10	6	6000	Part 6000	1	
11	6.1	6100	SubPart 6100	1	
12	6.1.1	6110	SubPart 6110	1	
13	6.1.2	6120	SubPart 6120	1	
14	6.1.3	6130	SubPart 6130	1	
15	6.2	6200	SubPart 6200	1	
16	6.2.1	6210	SubPart 6210	1	
17	6.3	6300	SubPart 6300	1	

c. In the import sheet, the Level column must be defined accordingly.

Column Definition

Specify which columns contains which data

Item Fields:

Level	A
Item No.	B
No. 2	
Description	C
Description 2	
Additional Text	
Quantity	D

3. Parent/Child

a. Excel import structure is set to Parent/Child.

CadConnect Setup

Attribute Setup | Dimension Setup | Automate v Fewer options

NAVEKSA - CadConnect 23.10.02.10

License Key [REDACTED]

General

CadConnect numbers	CADC
CadConnect Surface Template	%1-%2
Standard Import Format	Excel
Excel import structure	Parent/Child

b. The excel file must include a Parent-column and an item-column, which defines the levels and relations between the lines in the file.

	A	B	C	D
1	Part Number	Description	Qty	Parent
2	1000	MainPart 1000	1	
3	2000	Part 2000	3	1000
4	3000	Part 3000	2	1000
5	3001	SubPart 3001	1	3000
6	3002	SubPart 3002	1	3000
7	3003	SubPart 3003	1	3000
8	4000	Part 4000	1	1000
9	5000	Part 5000	1	1000
10	6000	Part 6000	1	1000
11	6100	SubPart 6100	1	6000
12	6110	SubPart 6110	1	6100
13	6120	SubPart 6120	1	6100
14	6130	SubPart 6130	1	6100
15	6200	SubPart 6200	1	6000
16	6210	SubPart 6210	1	6200
17	6300	SubPart 6300	1	6000
18				

c. In the import sheet, the Parent and child columns must be defined accordingly.

Column Definition

ParentItem	D
ChildItem	A
No. 2	
Description	B
Description 2	
Additional Text	
Quantity	C

6.1.2. Excel data field format to be used in CadConnect

Excel format for outputting CAD files to be used in CadConnect

The column and field definitions which can be used for the import into CadConnect.

When outputting files as part of a CAD-system product release process, the below defines the output format where columns can be used at your choice.

To our best knowledge all known CAD systems AutoDesk, SolidWorks, Creo a.o. can export BOM data to an excel file as part of the release process.

With a few exceptions (Additional text and Cost price) data content is equal to the BC fields in the Item (Table 27) and in the Production BOM Line (Table 99000789)

Additional text can be used at your convenience when working in CadConnect, but will not be transferred to BC.

Cost price will be transferred to BC only on new Items where the selected Template has defined, that the costing principle is Standard Cost.

Mandatory fields to be filled are: Level, Item number, (Item number 2), Description, Quantity, Unit of measure.

Please note, that you can set up a default Unit of Measure in CadConnect Setup.

This value will then be used, if you don't have a Unit of Measure in your Excel file.

Level designates the relative BOM level of the component – 1, 2, 3, 4 or 1.1.1.1.2, 1.1.1, or the last one represented via item number 1 and 2 as farther, child relations.

! Please notice you must stick to the standard field definitions – length and type when filling the excel sheet. If your fields exceed the length of the equivalent fields in BC, the values in your fields will be truncated to fit the lengths in BC.

A few hints which must be obeyed filling the excel sheet from CAD:

1. Notation for relative level must be .(period) and NOT comma.
2. All xlsx-lines must be one single line with field content aligned left.
3. Item number supplied from CAD must not exceed 20 characters when loading into CadConnect. CadConnect will truncate the values in excess, and as a consequence the item no.s you import will not be what you expect. Other fields exceeding BC limits will also be cut off to fit BC field definition.
4. Cost prices for a new component/raw material can be added and imported. CadConnect lines with existing items will show the cost price from the item card.

	A	B	C	D	E
1	Dansk - Feltnavn	Deutsch - Feldnamen	English - Field Names	Data Type	Length
2	Syklisteniveau	Stücklistestufe	Level	Integer	
3	Varenummer	Artikel Nr.	Item No.	Code	50
4	Varenr 2	Nr. 2	No. 2	Code	50
5	Beskrivelse	Beschreibung	Description	Text	100
6	Beskrivelse 2	Beschreibung 2	Description 2	Text	100
7	Udvidet varenummer tekst	Ausgeweitert Tekst	Additional text	Text	50
8	Antal	Anzahl	Quantity	Decimal	
9	Enhedskode	Einheitencode	Unit of Measure Code	Code	10
10	Vægt	Gewicht	Weight	Decimal	
11	Versionskode	Versionscode	Version Code	Code	10
12	Position	Position	Position	Code	10
13	Position 2	Position 2	Position 2	Code	10
14	Position 3	Position 3	Position 3	Code	10
15	Start dato	Startdatum	Starting Date	Date	
16	Slut dato	Enddatum	Ending Date	Date	
17	Længde	Länge	Length	Decimal	
18	Bredde	Breite	Width	Decimal	
19	Dybde	Tiefe	Depth	Decimal	
20	Formel	Formel	Calculation Formula	Option	
21	Kostpris	Einstandpreis	Cost price	Decimal	
22					

A simple example on a CAD-output file ready for import

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Level				Qty.per					Description	No		Support text		U/M
2	0				1					NAV demo item	FX-39		Fabricated end-item		STK
3	1				1					Fabricated item	TESTING10				STK
4	1				1					Fabricated item	MV2527				STK
5	2				2					Purchased component	RV298310		Joint coupling		STK
6	2				0,3					Purchased raw material	434717		2x1 mtr plade		KG
7	1				1					Purchased component	3465				STK

6.1.3. Load Excel product data into CadConnect

Loading Excel product data into CadConnect

You have a new file generated by the CAD system saved on a disk drive and folder location, and now wants to have this imported into CadConnect.

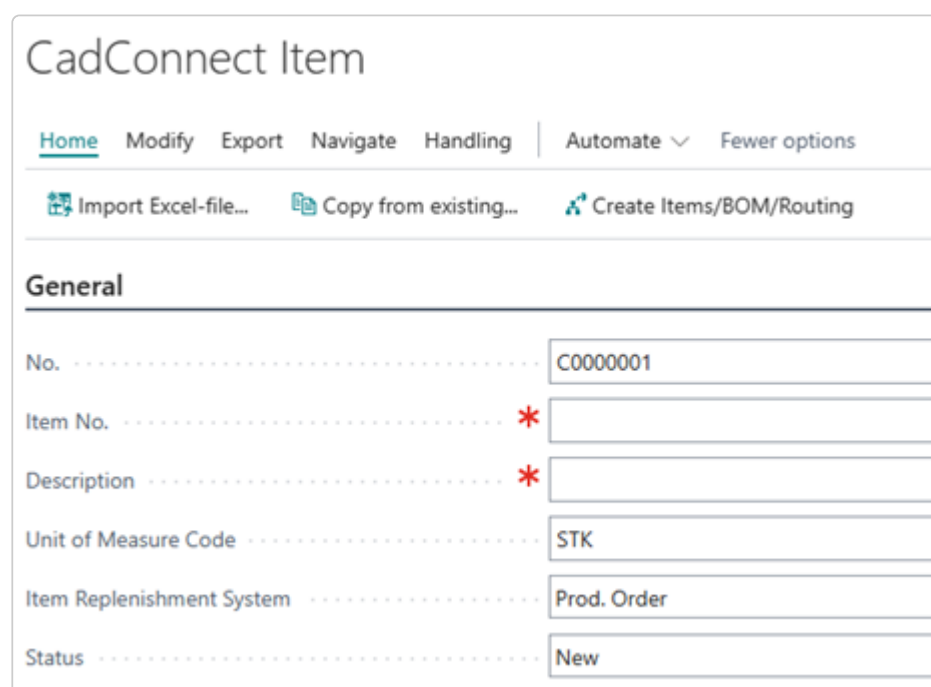
Start the program and select New in the CadConnect – List screen. This will take you to the CadConnect work display.

The list screen is the entry point for working with constructions. Adding a New construction will create a record for later reference.

Work with Excel files in CadConnect

Assign a new CadConnect number by pressing the return key in the No. field.

Press the wanted menu ribbon button – Import Excel-file.





The screenshot shows the 'CadConnect Item' form with the 'General' tab selected. The form has a ribbon at the top with buttons: Home, Modify, Export, Navigate, Handling, Automate (with a dropdown arrow), and Fewer options. Below the ribbon are three icons: 'Import Excel-file...', 'Copy from existing...', and 'Create Items/BOM/Routing'. The 'General' section contains the following fields:

No.	C0000001
Item No. *	
Description *	
Unit of Measure Code	STK
Item Replenishment System	Prod. Order
Status	New

A new screen shows up where you must select a file and a sheet. Also you must tell the number of the first row with product data, and you must decide upon if the first row line will be a new end-item, or you will create this yourself.

CadConnect Excel data import



Options

Import from

Workbook File Name

...

Worksheet Name

...

First Data row

First Data row = Header Item

☒

Column Definition

Specify which columns contains which data

Additionally you must do the mapping to the fields in the file by assigning the correct column IDs. Setting up these column-definitions and other import parameters will be saved in a user setup, so that next time you only need to select the new file and sheet for import. Saving the values per user will allow individual users to import files from different sources with different layouts without having to change the setup each time.

The different parts of the field mapping will be explained in the following:

Item related Fields

First section hold the mapping of data-files, that will end up as fields in the Item card.

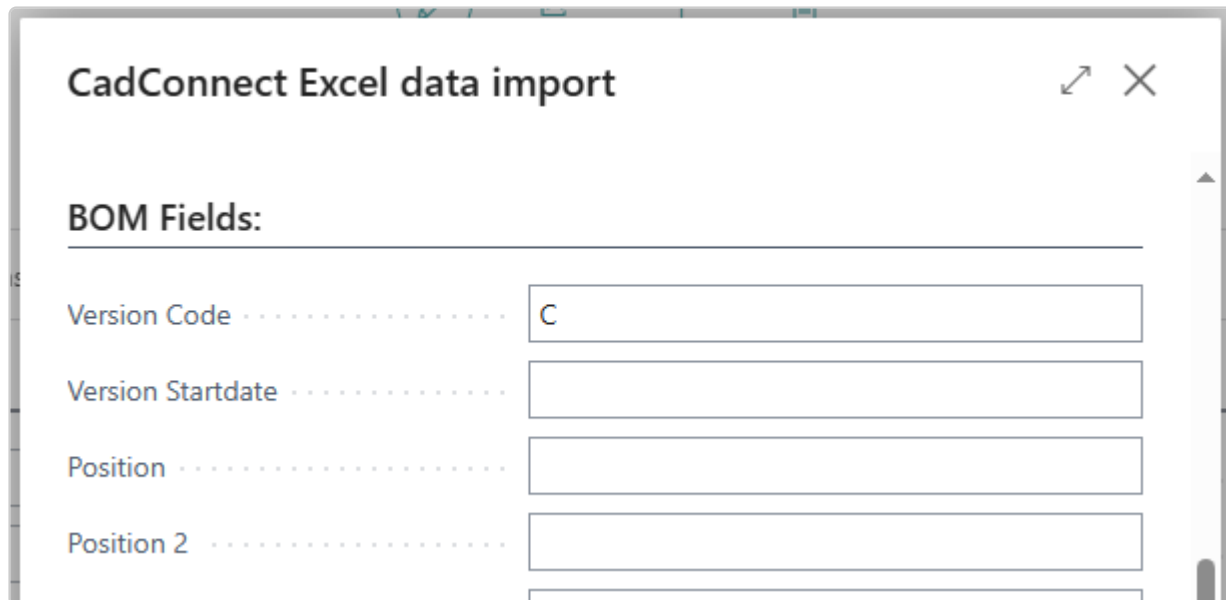
Column Definition	
Specify which columns contains which data	
Item Fields:	
Level	A
Item No.	B
No. 2	
Description	H
Description 2	F
Additional Text	
Quantity	D

If you have selected the Parent/Child datastructure in Setup, the Item part looks slightly different:

Column Definition	
ParentItem	A
ChildItem	B
No. 2	
Description	H

BOM related Fields

Next section hold the mapping of data-files, that will end up as fields in the BOM lines.



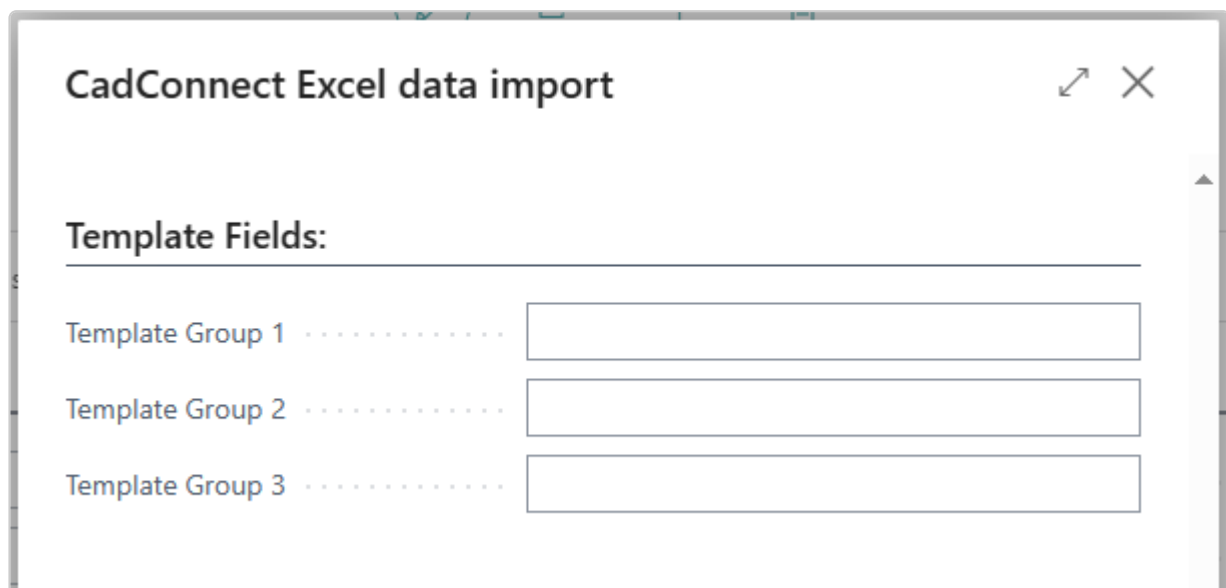
The screenshot shows a dialog box titled "CadConnect Excel data import" with a close button (X) and a refresh button (circular arrow). Below the title is a section labeled "BOM Fields:" followed by a horizontal line. There are four input fields with labels to their left: "Version Code" (containing the letter 'C'), "Version Startdate", "Position", and "Position 2". Each label is followed by a dotted line. The dialog box has a vertical scrollbar on the right side.

BOM Fields:	
Version Code	<input type="text" value="C"/>
Version Startdate	<input type="text"/>
Position	<input type="text"/>
Position 2	<input type="text"/>

Template Fields

If you have set up advanced templates, the next section will hold the mapping of the Template definition fields.

For setting up and using templates, please refer to the description in [CadConnect setup](#) and extended description in section [Using Advanced templates](#)





The screenshot shows a dialog box titled "CadConnect Excel data import" with a close button (X) and a refresh button (circular arrow). Below the title is a section labeled "Template Fields:" followed by a horizontal line. There are three input fields with labels to their left: "Template Group 1", "Template Group 2", and "Template Group 3". Each label is followed by a dotted line. The dialog box has a vertical scrollbar on the right side.

Template Fields:	
Template Group 1	<input type="text"/>
Template Group 2	<input type="text"/>
Template Group 3	<input type="text"/>

Attribute Fields

If you have set up Attributes to be imported through CadConnect, the next section will hold the mapping of these Attributes.

CadConnect Excel data import



Item Attribute Fields:



Beskrivelse af materiel	<input type="text"/>
Farve	<input type="text"/>
Modelår	<input type="text"/>

Variant Fields

If you in the Setup have selected to use Item variants, the next section will hold the mapping of these Variants.

You can import up to 8 variants pr. Item. You can import existing Variants or add new variants. When adding new variants, you can here also here supply the variant description.

CadConnect Excel data import



Item Variant Fields:

Variant 1	<input type="text"/>
Variant Description 1	<input type="text"/>
Variant 2	<input type="text"/>
Variant Description 2	<input type="text"/>
Variant 3	<input type="text"/>
Variant Description 3	<input type="text"/>

Dimension Fields

If you have set up Dimensions to be imported through CadConnect, the next section will hold the mapping of these Dimensions.

You can import existing Dimension Values or add new Dimension Values.

When adding new values, you can here also here supply the Dimension value name.

CadConnect Excel data import ↗ ✕

Item Dimension Fields:

Department	<input style="width: 60%;" type="text"/>
Department Name	<input style="width: 60%;" type="text"/>
Sales campaign	<input style="width: 60%;" type="text"/>
Sales campaign Name	<input style="width: 60%;" type="text"/>

Routing/Operation Fields

You have the possibility to import either references to existing routings or new operations lines that then will end up as a new routing in CadConnect and BC.

You have one Setup Field to concern: Default Resource Type (Work Centre or Machine Centre). When you import operations and thereby resource no. the system will look in the Setup to define what type the imported resource should have.



! Please note, you can only import operations using existing resources. CadConnect does not have the ability to create new resources as this implies serious considerations regarding posting groups, costing, capacity planning and so on.

If you set an import reference for Routing No. then the values imported from that column must match an existing BC Routing. This will then be added as routing to the item found on the same line in Excel or the item found on the line just above the routing line, if there are no item reference in the Excel row with the Routing reference.

If you set import references for Prod.Res.No. then the values imported from that column must match an existing BC Resource of the type selected in Setup. This will then be added as an operation to the item found on the line just above the first routing line. Additional lines will be added as operations on the same routing. The operations will be filled with relevant data from the columns specified in the following import references.

The mapping of Routing/Operation data is done in the next section.

CadConnect Excel data import



Routing/Operation Fields:

Routing No.	<input type="text"/>
Prod. Res. No.	<input type="text"/>
Oper. Description	<input type="text"/>
Setup Time	<input type="text"/>
Run Time	<input type="text"/>

Item Links

If you want to import File Links you must select the number of Links in Setup and do the mapping in the next section.

You can in Setup define whether these Links shall be transferred to Items or to BOMs.

The File Names will be transferred to the Description Field in Links and the File Addresses will be transferred to the LinkAddress Field in Links.

! Please note, that these values are handled by CadConnect as simple texts. There are no validation in CadConnect whether the File Links you import exists, are accessible and/or readably. This is your responsibility to ensure that.

Item / BOM Links:

File Name 1	<input type="text"/>
File Address 1 (URL / UNC)	<input type="text"/>
File Name 2	<input type="text"/>
File Address 2 (URL / UNC)	<input type="text"/>
File Name 3	<input type="text"/>
File Address 3 (URL / UNC)	<input type="text"/>

6.2. Work with other data input methods

Work with other input methods

CadConnect also offers other options in terms of the creation and modification of new and existing products.

- Copy an existing product from BC
- Manual key a new product
- Input of an XML-file with a predefined format

6.2.1. Copy a product from BC

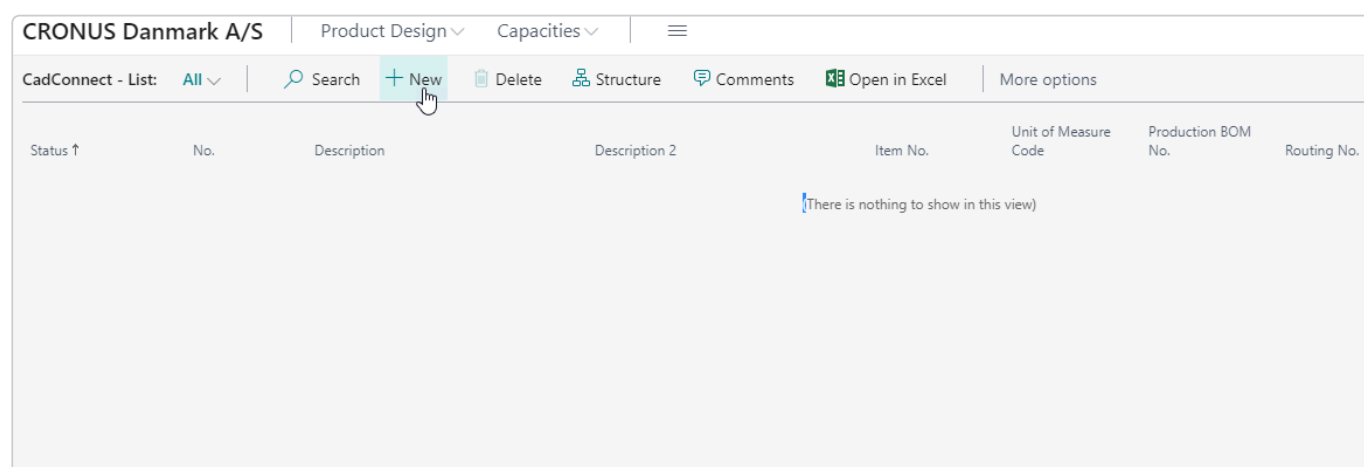
Copying a product from BC

You have a product defined in BC, and now wants to work with this one in a “**Same-as-Except**” manner to create a new product or a new version of the existing product.

For information about working with versions, please refer to [section 7.1.11](#)

Start the program and select New in the CadConnect – List screen. This will take you to the detail CadConnect screen. Read more to continue work in – Working with the CadConnect display.

The list screen is the entry point for working with constructions. Adding a New construction will create a record for later reference.



Click on the menu ribbon button Copy from existing and select what you want to be copied from an existing item:

NAVEKSA CCN COPY EXISTING

Copy Main Route

☒

Copy Main Prod.BOM

☒

Copy all Routes

☒

Copy all Prod.BOMs

☒

Copy Assembly BOM

☐

Filter: Item

× No.

+ Filter...

Filter totals by:

+ Filter...

OK

Cancel

6.2.2. Add a new product by keying manually

Add a new product by keying manually

You have a new product on paper, and now wants to create this product by keying in all the details.

Start the program and select New in the CadConnect – List screen. This will take you to the detail CadConnect screen. Read more to continue work in – Working with the CadConnect display.

The list screen is the entry point for working with constructions. Adding a New construction will create a record for later reference.

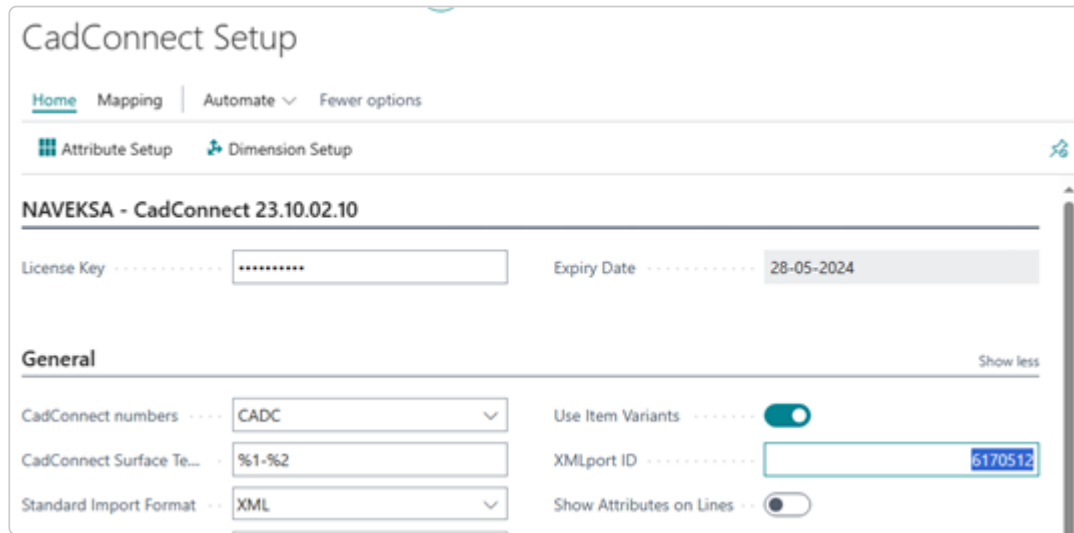
Just start inserting and modelling:

6.2.3. Input of an XML-file with a predefined format

Working with XML-files in CadConnect

Import of an XML file requires, that the file has a specific pre-defined format and that this format has been set up in CadConnect Setup mapping tables.

To work with XML-files, you must select XML as Standard Import Format and supply the correct XMLport ID, that matches your data-structure.



CadConnect Setup

Home Mapping Automate Fewer options

Attribute Setup Dimension Setup

NAVEKSA - CadConnect 23.10.02.10

License Key Expiry Date 28-05-2024

General Show less

CadConnect numbers CADC Use Item Variants ☒

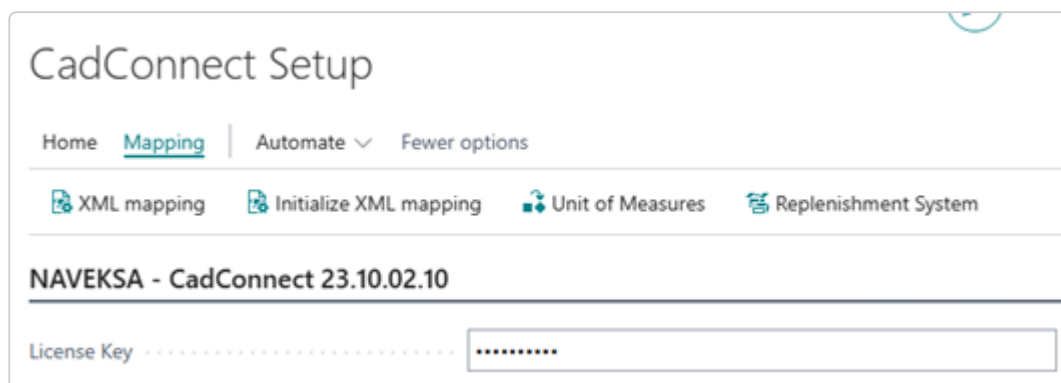
CadConnect Surface Te... %1-%2 XMLport ID 6170512

Standard Import Format XML Show Attributes on Lines ☐

In addition, you will need to set up the proper mapping to link your files XML-tags to the correct fields or attributes in CadConnect and BC.

You can set up mapping to item fields, item attributes and BOM line fields.

You must also define relevant values for transformation of Unit of Measure codes and defining Replenishment System.



CadConnect Setup

Home Mapping Automate Fewer options

XML mapping Initialize XML mapping Unit of Measures Replenishment System

NAVEKSA - CadConnect 23.10.02.10

License Key

For more information about implemented XML-structures and the mapping setup, please contact NAVEKSA A/S.

7. How to work with CadConnect

How to work with CadConnect

Working with a CadConnect construction is very intuitive and straight-forward.

Basically, it is all about inserting/changing/deleting rows of various data types, and perhaps re-arranging line sequences.

Expanding this topic will show sub-topics for defining CadConnect data input.

7.1. Work with CadConnect functions

Work with CadConnect functions

Work with a construction may involve many different functions.

Each topic is described in this section.

7.1.1. Using line colouring in CadConnect

Using line colours in CadConnect

The colours as seen in the figure and on the items in the CadConnect have the following meanings in relation to data in BC.

- **Blue** = This line colour is used on routings and operations
- **Green** = This line colour is used on items and means that the item exists in BC and itself is a production BOM in BC
- **Black** = This line colour is used on items, and means that the item / component exists in BC as a purchased item
- **Red** = This line colour is used on items, and means that the item does not exist in BC, So you can possibly end up with a new CAD structure with the following colouring.

C0000007

Process Import Copy Update Actions Fewer options

General

No.	C0000007	Routing No.
Item No.	STUNTBIKE ▼	Production BOM No.
Description	Stuntbike order	Lot Size
Unit of Measure Code	STK ▼	User ID
Item Replenishment System	Prod. Order ▼	Total Cost
Status	Under Development ▼	

Lines Manage Insert Modelling Fewer options

✕ Type	Level	No.	Description	Template Routing No.	Item Type	Item Replenish... System
✓ Route	0	STUNTBIKE	Cykel			Prod. Order
Work Ce...	1	100	Fælg med dæk			Prod. Order
Machine ...	1	120	Kædesamling			Prod. Order
Machine ...	1	130	Endelig samling			Prod. Order
Machine ...	1	110	Kontrol			Prod. Order
→ ✓ Item	0	1100-RED	Forhjul		Production	Prod. Order
✓ Item	1	1100	Forhjul		Production	Prod. Order
> Route	2	1100				Prod. Order
Item	2	1110	Fælg		Purchase	Purchase
Item	2	1120	Eger		Purchase	Purchase
> Item	2	1150	Fornav		Production	Prod. Order

7.1.2. Using the Insert line Menu function

The Insert menu function makes you able to add various different lines that makes up a complete product description.

Insert works on the line you have selected and downwards.



- Insert Item is for adding a new or keying/selecting an item. Selecting an existing item is done using the look up button in the number field to access the BC item list.
- Insert Operation is for adding an operation step. Please note, that inserting an operation will automatically add a Routing-line above, if not already existing.
- Insert 1st Main operation is for adding an operation step to the finished item (CadConnect header item) Please note that inserting an operation will automatically add a Routing-line above.
- Insert Routing is for selecting an existing BC routing. Selecting an existing route is done using the look up button in the number field to access the BC routing list.
- Insert Main routing is for adding an existing BC routing to the finished item (CadConnect header item). Selecting an existing route is done using the look up button in the number field to access the BC routing list.

✿ Read more about using routings in CadConnect in the Setup-section [Re-use routings](#)

✿ As an alternative to using the menu functions “insert Routing” and “Insert Main routing” you can enter the selected existing routing no. in the field “Template Routingno.” In the header or on an item type line.

- Insert Surface is for adding a new level product with a treatment to a component line. The new treated item will be added above the currently active line, one level higher and the number will be set according to the definition in CadConnect Setup, “CadConnect Surface Template” where %1 means Item No. and %2 means Surface Code.

CadConnect Setup

Home

Mapping

Automate

Fewer options

Attribute Setup

Dimension Setup

NAVEKSA - CadConnect 23.10.02.10

License Key

.....

General

CadConnect numbers

CADC

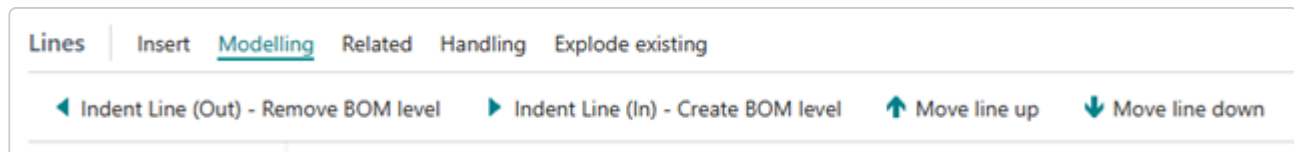
CadConnect Surface Template

%1-%2

7.1.3. Using the Modelling line Menu function

Using the Modelling tooltip

Using the modelling menu function is for moving lines around – up/down and/or move lines in/out.



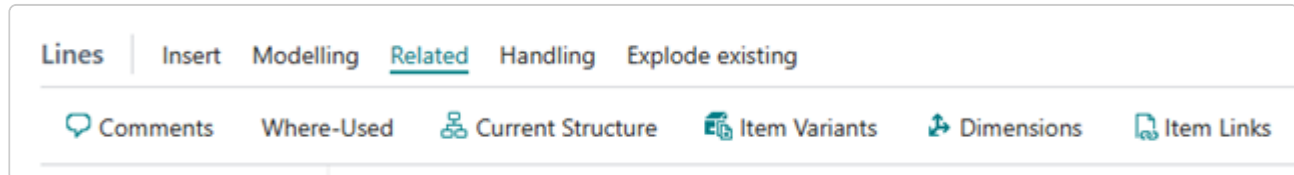
The Indent in/out functions are only valid for items and creates a new BOM level or removes a BOM level.

The Move up/down functions are for changing sequence for component items and changing operations line sequence within a routing.

7.1.4. Using other line Menu functions – Renumber, Delete a.o.

Using other line functions – Renumber, Delete a.o.

The *Related* menu holds the following functions:



Comments

On the active line you will be able to add or edit line comments no matter the line type. Comments will be transferred to the item, BOM, Route or operation in BC when you run the Create-function.

Where-used

At an active line pressing the “Where-used” will show the standard BC where-used display to see single where-used or end-item where used relations.

Current Structure

At an active line, pressing this button will display the standard BC BOM structure.

Item Variants

In the active item line, you will be able to add or edit variants of the item which will be added to BC when you run the Create-function.

Dimensions

Gives access to a page showing the dimension values, that have been imported for the item line with possibility to modify these values before creating the items in BC.

Item Links

On the active item line, you will be able to add or edit Links (file-references) which will be added to BC Item or BOM according to Setup, when you run the Create-function.

The *Handling* menu holds the following functions:



Renumber Lines

When adding several lines in between existing lines you might get stuck in standard BC record handling limitations. Pressing the “Renumber” button will resequence all lines and you can continue.

Delete Line

Pressing “Delete Line” is a line delete function including deleting all lines attached to this active line, as intended lines below.

You will be notified whether this is what you want to do.

Delete Multiple Lines

By activating the “Show more options” function (the 3 dots next to the Type column) and choosing “Select more”, you will be able to mark several lines.

Then by pressing “Delete Multiple Lines” all the lines, that you have marked including all lines attached to these marked lines as indented lines below, will be deleted.

You will be notified whether this is what you want to do.

Rename BC Item

This function will perform the same action as if you manually do a rename in BC by entering a new Item number on an existing Item in the BC Item card.

The rename function will do the rename in BC and also in CadConnect wherever this item has been used.

If the Item is a produced item and holds a Production BOM No. that is identical, you will be prompted to decide if you want this Prod.BOM renamed accordingly.

Transfer Routing Link Code

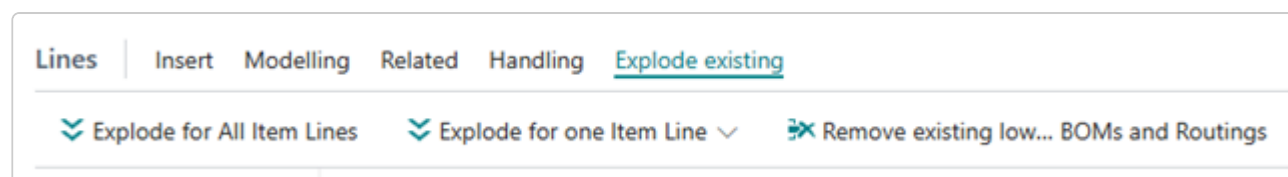
If you have a Routing Link Code on an operation line and want to have this code copied to one or more Item (component) lines, you can activate the “Show more options” function, choose “Select more” and then mark the operation line holding the Routing Link Code and mark the desired item line(s). Then by pressing “Transfer Routing Link Code” the code will be copied from operation to item(s).

Using explode and collapse functions when working on a construction

While working with a construction, it is possible to explode and collapse the structure of existing items.

If you have existing sub-assemblies in your CadConnect and want to see or hide the full structure of one or more of these items, you can do so by the line menu “Explode existing”

The *Explode existing* menu holds the following functions:



Explode for All Item Lines

This function will explode all BOMs and routings for all produced items, thus showing the full structure in the lines below. Operations and components.

Explode for one Item Line

This function allows you to choose to explode the BOM, the routing or both for the current active item line, thus showing the full structure in the lines below. Operations and components.

Remove existing lower-level BOMs and routings

If you want to reduce the complexity and get an easier overview of your end-product, you can remove all

structure below level 0 by selecting this function.



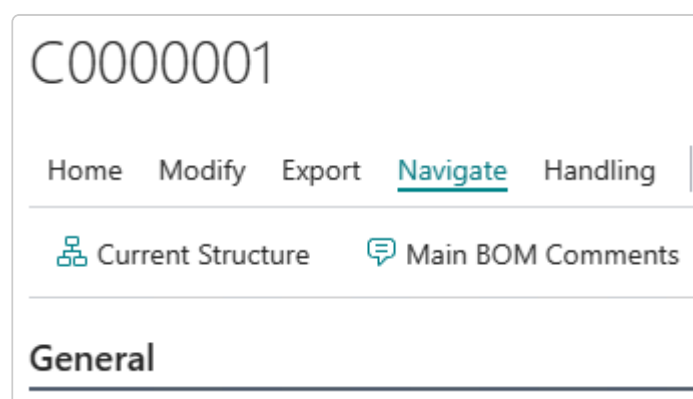
Please note that everything is only carried out on existing produced items. If you have any new non-existing Items in you CadConnect, these items and the underlying structure will not be touched by the explode/collapse functions.

7.1.5. Using comments in CadConnect

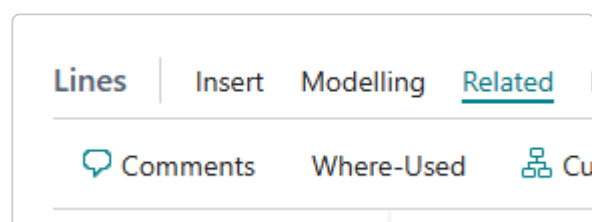
Using comments in CadConnect

Comments can be added to both end-items and component/routing lines.

Comments which shall be added to end-items BOM are added using the Navigate, Main BOM Comments button in the ribbon.



Comments which shall be added to end-items routings or to component lines or routing lines are added using the Related, Comments button in the line ribbon.



Comments added whatever the header or detail level will be copied into a new CadConnect construction when using the “Copy from existing” ribbon function.

Subsequently the comments can be maintained and will be transferred to BC when using the Create-function.

7.1.6. Using cost calculation when working on a construction




Using cost calculation when working on a construction

During working with a construction it is possible to calculate the cost as the work progresses.

Press the Handling, Calculation button.

C0000001

Home Modify Export Navigate Handling Automate ▾


 Explode existing main route  Compare  Calculation

The calculation uses the same principles as a standard BC cost calculation, and calculates cost for materials, setup, labor and overhead for all lines and accumulates into the header total cost field.

Material cost are based on the “Unit cost” price of items and the work center/production resource rates.

Total Cost	322,50
Material Cost	15,00
Labour Cost	292,50

If you should have forgot to calculate before creating data in BC, a warning message is issued to take action on that

 Update calculation

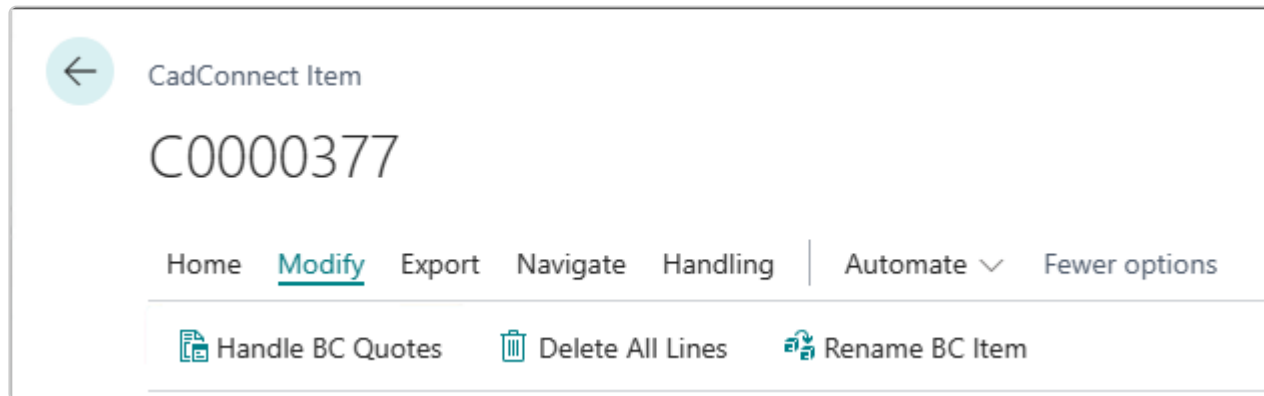


Please note, that when creating new items the Standard Cost value will be updated on these items accordingly, but only if you create items using a template where costing principle has been set to “Standard Cost”.

7.1.7. Additional CadConnect header functions

There are a few other header-based functions which will be described here:

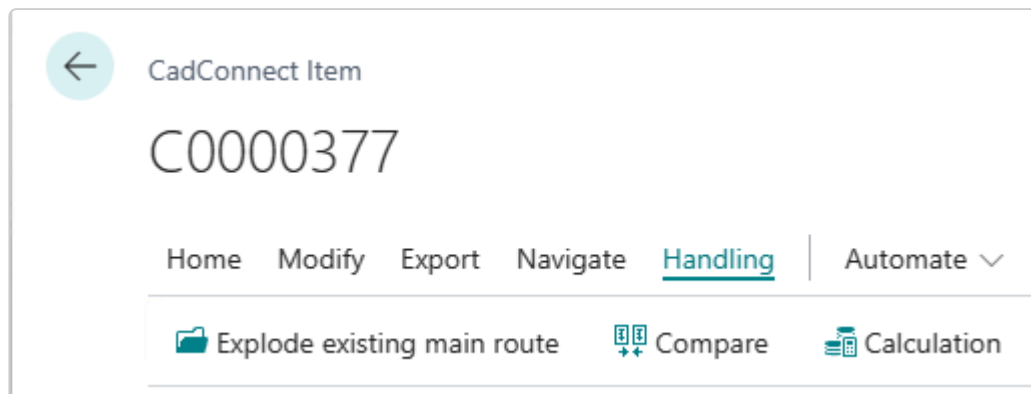
Rename BC Item



This function will perform the same action as if you manually do a rename in BC by entering a new Item number on an existing Item in the BC Item card.

The rename function will do the rename in BC and also in CadConnect wherever this item has been used.

If the Item is a produced item and holds a Production BOM No. that is identical, you will be prompted to decide if you want this Prod.BOM renamed accordingly.



Explode existing main route

This function will add/explode the existing BC routing as the new routing for the header Item.

Compare

Some times you are in a situation where you want a quick overview of differences between two constructions. Maybe you are creating a new version of an existing Item or looking at two items that seems alike.

By the Compare function you select the BC Item to be compared with the current structure in your CadConnect and you get a quick overview, line for line with all the differences marked in red.

7.1.8. Using Header screen – Data Field definitions

How to use CadConnect – Header screen – Data Field definitions

You can select to see all fields in the CadConnect Header or a reduced number of fields by choosing “Show more / Show less” in the upper right corner.

The Field definitions below describes all available Fields.

General		Show less	
No.	C0000015	Lot Size	1
Item No.	TRACK_QC	Gross Weight	0
Description	Our Verfolgung und Qualitäts artikel	Net Weight	0
Description 2		User ID	LAPTOP-614AHTVP\BEK
Main BOM Version		Last Date Modified	15-04-2018
Main BOM Version Start		Total Cost	322,50
Unit of Measure Code	STK	Material Cost	15,00
Item Replenishment System	Prod. Order	Labour Cost	292,50
Status	Certified	Profit %	0
Config. Template	VARE000001	Unit Price	0,00
Template Routing No.		Simulated Total Cost	0,00
Routing No.	TRACK_QC	Simulated Material Cost	0,00
Production BOM No.	TRACK_QC	Simulated Labour Cost	0,00
Scrap %	0		

- No = System assigned trough a setup number services, or keyed CadConnect number
- Item no = Keyed or imported end-item number
- Description = Keyed or imported item description
- Description 2 = Keyed or imported item description 2
- Main BOM version = Version code to be set on the main BOM created
- Main BOM version start = starting date for the main BOM version
- Unit of measure code = Keyed or imported value. Must be a standard BC unit of measure code. If you have a default value in CadConnect Setup, this value will be proposed on new CadConnect, but can be replaced.
- Item Replenishment System = As default the value will be either Prod. order or Assembly, according to the selected principle in CadConnect Setup. The value can be changed to Purchase or an other value. This makes it possible to have an item created with a BOM and a Routing, but with Replenishment System set as Purchase. Please refer to general Make or Buy considerations
- Status= New, Certified, Under development, Closed. Just like standard BC functions for controlling the maintenance of Items, BOM and routings
- Config.template / Item Template = Configuration template is the standard BC item creation configuration template to be used creating this item. If left blank, the default value from CadConnect setup definition End Item Template will be used.



For setting up and using templates, please refer to the description in [CadConnect setup](#) and extended description in section [Using Advanced templates](#)

- Template Routing no. = You can type / select an existing routing no. in this field to be used as the routing for the item. The routing operations will be added as lines below depending on Setup.
- Routing no = System maintained
- Production BOM no = System maintained
- Scrap % = Value to be used in calculations. The value will be transferred to the main Item when this is created.
- Lot Size = Value to be used in calculation, if it has been chosen in Setup to calculate incl. Setup costs. The value will be transferred to the main Item when this is created.
 - Gross Weight = Keyed or imported value. The value will be transferred to the main Item when this is created.
 - Net Weight = Keyed or imported value. The value will be transferred to the main Item when this is created.
- User-id = ID for the user, that has created the actual CadConnect.
- Last Date Modified = Last date a user has worked with / changed this CadConnect construction
- Total cost = Calculated cost price for the main item. Creating an item will update the item card Last cost price for the header item, and the Unit Cost if the costing principle is set to Standard cost.
 - Material Cost = Total of cost from all item lines
 - Labour Cost = Total of cost from all operation lines
 - Profit % = Keyed or calculated value. According to principles from BC Items. See relation to Unit Price.
 - Unit Price = Keyed or calculated value. According to principles from BC Items. See relation to Profit %.
- Simulated Total Cost = Total of simulated cost from all lines
- Simulated Material Cost = Total of simulated cost from all item lines
- Simulated Labour Cost = Total of simulated cost from all operation lines

7.1.9. Using CadConnect – Detail screen – Data Field definitions

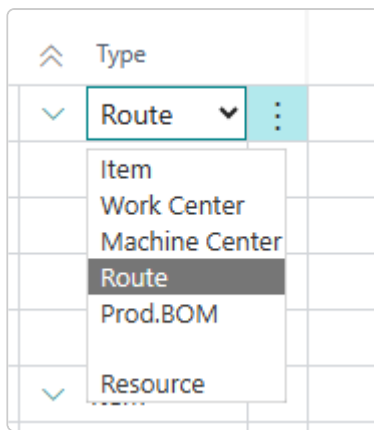
How to use CadConnect – Detail screen – Data Field definitions

In the line detail display you have several columns and fields available depending on your needs.

The configuration of the display is done using the standard BC function Personalize

- Type

Type is normally derived from what you insert – item, routing etc.



Please notice you can redefine a new item into a Production BOM (Phantom item) type. By default a type "Item" will be created.

Doing this process of course depend on having a bill of material which shall be turned into a production bill of material

- Level
System maintained. For reference to specify the structure
- No
Item number / Work Center no. / Machine Center no. / Routing no. / Assembly Resource no.
- No 2
Item number 2
- Description
Item description / Operation description / Routing description / Resource description
- Description 2
Item description 2

- **Additional text**
Additional text is for CadConnect use only. There are no transfer to BC.
- **Template Routing no.**
You can type / select an existing routing no. in this field to be used as the routing for the item. The routing operations will be added on the lines below depending on Setup
- **Item type**
This field has 3 possible values – Purchase, Production or Assembly
When you work with a BOM structure the system will find the most appropriate Type based on BOM relations. However you can overrule this value, in the field “Item Replenishment system” for existing items, the value from the item card will be shown
- **Item Replenishment System**
This field can have 3 different values – Purchase, Production or Assembly
If you want to overrule the values calculated by CadConnect in “Item Type” you can do this by using this field. When creating new items, the value from this field “Item Replenishment System” will be transferred to the Item Card in BC to the field “Replenishment System”.
The function can be relevant, if you create an item with a BOM but you normally purchase the item.
Please refer to general Make or Buy considerations
- **Quantity**
Component quantity for the line
- **UoM Code**
Unit of measure code. As used in standard BC relating to Quantity. Contains a look up function to the BC Unit of measure file, Imported value, keyed in value or default value.
- **Where-Used**
This is a system maintained field showing single level “where used”. Updated automatically by CadConnect.
- **Setup Time**
Setup time for an operation line
- **Setup Time Unit of Measure Code**
Setup time unit of measure code to be selected
- **Run Time**
Run time for an operation line
- **Run Time Unit of Measure Code**
Run time unit of measure code to be selected
- **Wait Time**
Wait time for an operation line

- Wait Time Unit of Measure Code
Wait time unit of measure code to be selected
- Move Time
Move time for an operation line
- Move Time Unit of Measure Code
Move time unit of measure code to be selected
- Routing Link Code
If you want to link material and routing operations to each other, use this field.
- Vendor No.
For an item line it is possible to look up in BC vendor file and select a (primary) vendor for this item.
- Vendor Item No.
For an item you can key the vendor item number for the selected vendor, in this field.
- Unit Cost
For a new item the cost price can be keyed in this field. For an existing item this field will contain the unit cost price from BC.
- Lead Time Calculation
Lead time with period indication (e.g. 3M). Standard lead time for purchased items.
- Gross Weight
You can enter the gross weight for an item here
- Net Weight
You can enter the net weight for an item here
- Version Code
Used on Purchased items will update CadConnect version file. Used on Produced items will update Bom. Used on operations will update Routings.
- Version start
Will be used as starting date of the version
- Previous version
If an active BOM version exists, the version will be shown in this field. For purchased items the previous version relates to the CadConnect version file.
- Position
Reference to a position number in the BOM can be keyed here
- Position 2
Reference to a position number in the BOM can be keyed here

- **Position 3**
Reference to a position number in the BOM can be keyed here
- **Starting Date**
If you use Effective dates on BOM, components can be time-phased using this field.
- **Ending Date**
If you use Effective dates on BOM, components can be time-phased using this field.
- **Length**
Length of the item in a BOM can be keyed in this field.
- **Width**
Width of the item in a BOM can be keyed in this field.
- **Depth**
Depth of the item in a BOM can be keyed in this field.
- **Calculation Formula**
A calculation formula in a BOM can be keyed in this field
- **First Comment**
Clicking this field will display the screen for adding/editing comments to the line.
First line of the comments will always be displayed in the CadConnect detail screen.
- **Config. Template / Item Template**
If this is a new item select a item creation template if not using the CadConnect Setup default template
For setting up and using templates, please refer to the description in [CadConnect setup](#). and extended description in section [Using Advanced templates](#)
- **Variant Code**
If you use BC variants connected to items you can select an item variant for use in the BOM.
- **Single-Level Material Cost**
For further info check out standard BC cost calculation principles.
- **Single-Level Capacity Cost**
For further info check out standard BC cost calculation principles.
- **Single-Level Cap. Overhead Cost**
For further info check out standard BC cost calculation principles.
- **Total Cost**
For further info check out standard BC cost calculation principles.
- **Simulated Unit Cost**
For simulation purposes a new unit cost price can be keyed in this field.

- Simulated Single-Level Material Cost
Will be calculated based on Simulated Unit Cost.
For further info check out standard BC cost calculation principles.
- Simulated Single-Level Capacity Cost
Will be calculated based on Simulated Unit Cost.
For further info check out standard BC cost calculation principles.
- Simulated Single-Level Cap. Overhead Cost
Will be calculated based on Simulated Unit Cost.
For further info check out standard BC cost calculation principles.
- Simulated Total Cost
Total of simulated cost elements.
For further info check out standard BC cost calculation principles.
- Profit %
Keyed or calculated value. According to principles from BC Items. See relation to Unit Price.
- Unit Price
Keyed or calculated value. According to principles from BC Items. See relation to Profit %.
- Attributes
Various attributes can be set up in CadConnect, and depending on Setup the attributes can be shown and maintained on the lines.
Attributes are always shown in the factbox to the right.

7.1.10. Using CadConnect inquiry options

Inquiry options

From the CadConnect header you have access to various standard BC inquiry functions from the Navigate menu.

C0000015

Home

Modify

Export

Navigate

Handling

Automate

Fewer options

Current Structure

Main BOM Comments

Item Variants

Dimensions

Attributes

Item Links

Integration info

General

- 'Current Structure' opens the standard BC "BOM structure"
- 'Main BOM Comments' gives access to the Comments which shall be added to end-items BOM
- 'Item Variants' gives access to the variants to be added to the end item
- 'Dimensions' gives access to maintain the dimension values to be added to the end item
- 'Attributes' gives access to maintain values for selected Item Attributes
- 'Item Links' gives access to add or edit Links (file-references) which will be added to BC Item or BOM according to Setup
- 'Integration Info' shows some history information about importing and updating data to/from this specific CadConnect.

7.1.11. Using the CadConnect create items, BOM's and routings in BC

Create items, BOM's and routings in BC

When the CadConnect work is finished, the last job step is to create/update data in BC.

This is done by clicking the "Create items, BOM and Routing" box at the ribbon.

CadConnect Item

C0000012

Process Modify Export Navigate Handling Automate ▾ Fewer options

Import Excel-file... Copy from existing... Create Items/BOM/Routing

No. C0000012

Item No. SERLOT100 ▾

Now you will get different messages during the process.

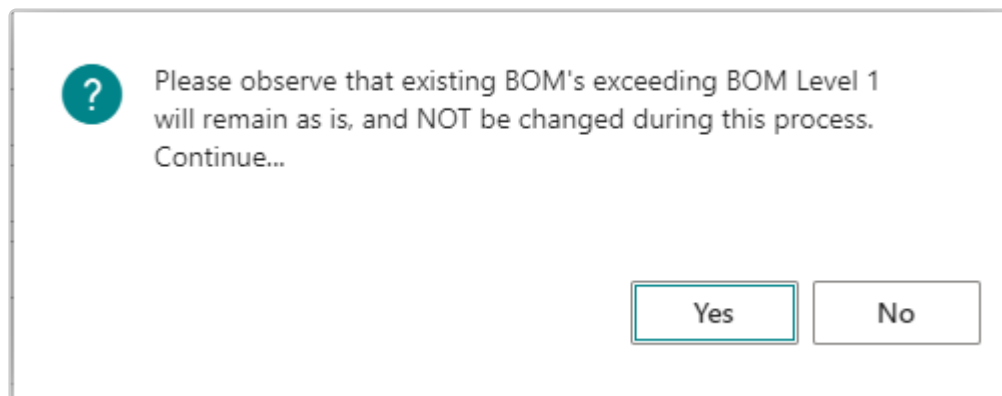
First message is a check if you should have forgot to actualize the cost calculation, you have the opportunity now to recalculate.

? Update calculation

Yes No

Next, depending on your selection in CadConnect Setup, field "Allow lower-level updates", you will be notified by a message.

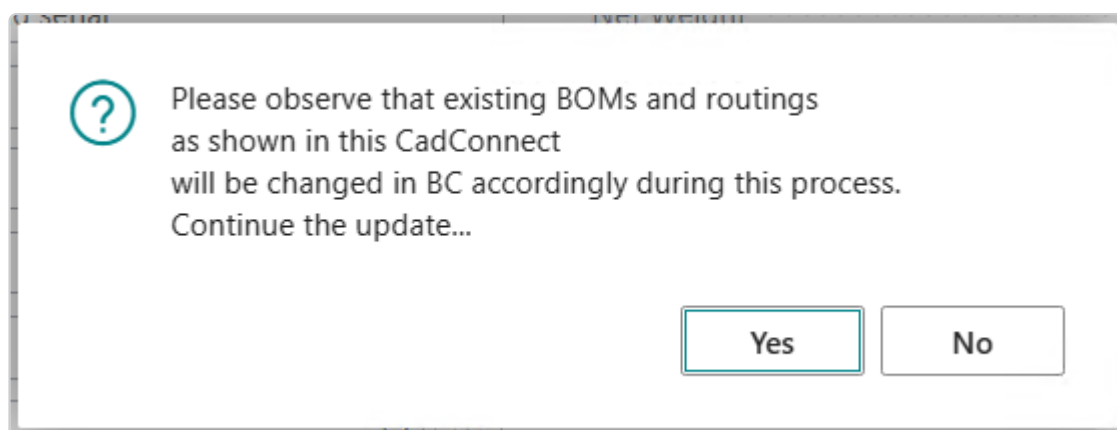
If you have not selected "Allow lower-level updates", you will be notified by the following message. The meaning of this is to say that any changes made beneath level 1 items, will not be performed.



A warning dialog box with a question mark icon. The text reads: "Please observe that existing BOM's exceeding BOM Level 1 will remain as is, and NOT be changed during this process. Continue...". At the bottom right, there are two buttons: "Yes" and "No".

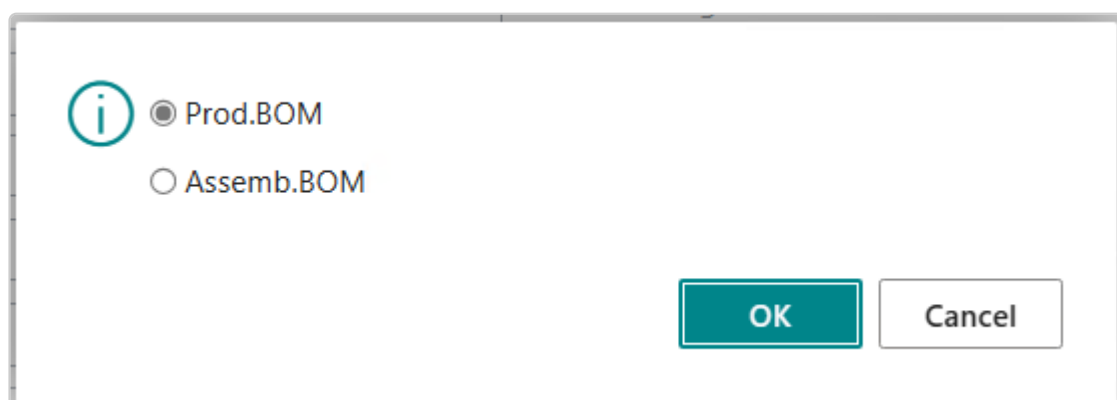
If you have selected "Allow lower-level updates", you will be notified by the following message.

! The meaning of this is to make you aware of the possible impacts these updates may have. You have the full responsibility for any changes including possible unexpected updates beneath level 1 items.



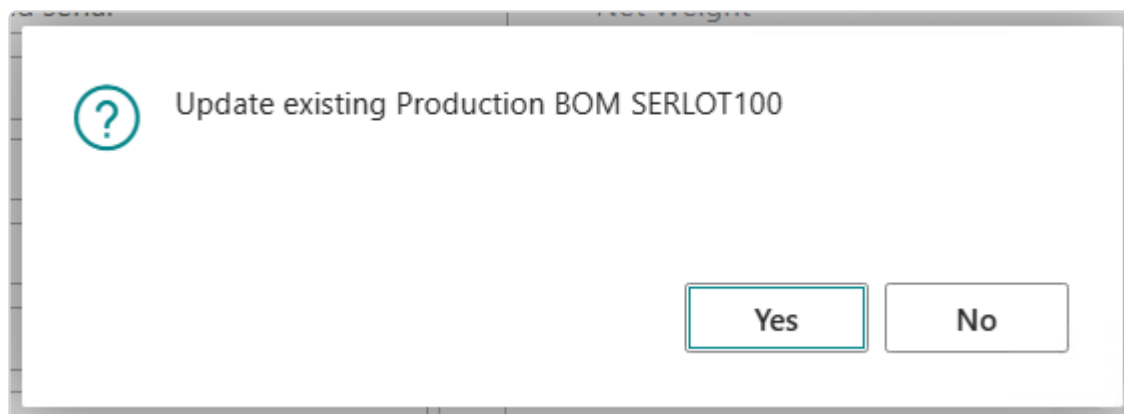
A warning dialog box with a question mark icon. The text reads: "Please observe that existing BOMs and routings as shown in this CadConnect will be changed in BC accordingly during this process. Continue the update...". At the bottom right, there are two buttons: "Yes" and "No".

Next message you must decide what kind of bill of materials you want to create – Production BOM or Assembly BOM or both. Note. This message box is controlled by the CadConnect setup, and only shown if you have selected "both" as BOM type for creation.

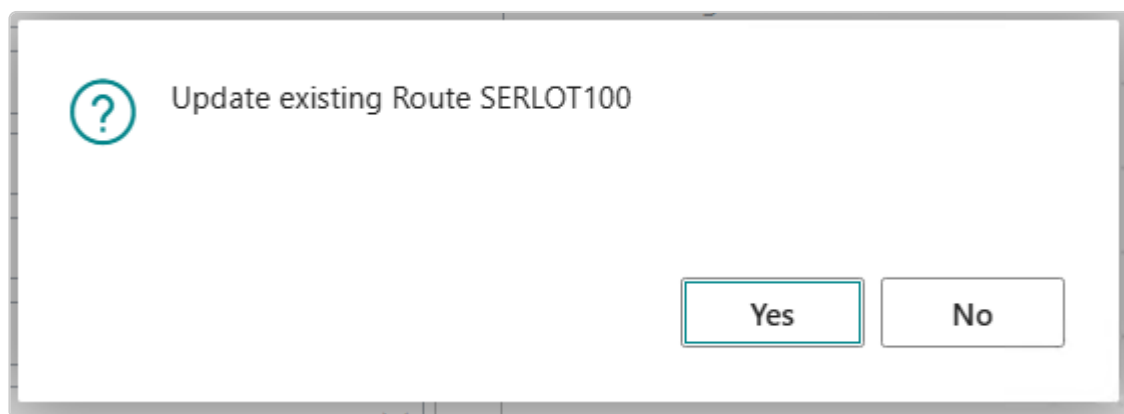


A selection dialog box with an information icon. It contains two radio button options: "Prod.BOM" (which is selected) and "Assemb.BOM". At the bottom right, there are two buttons: "OK" and "Cancel".

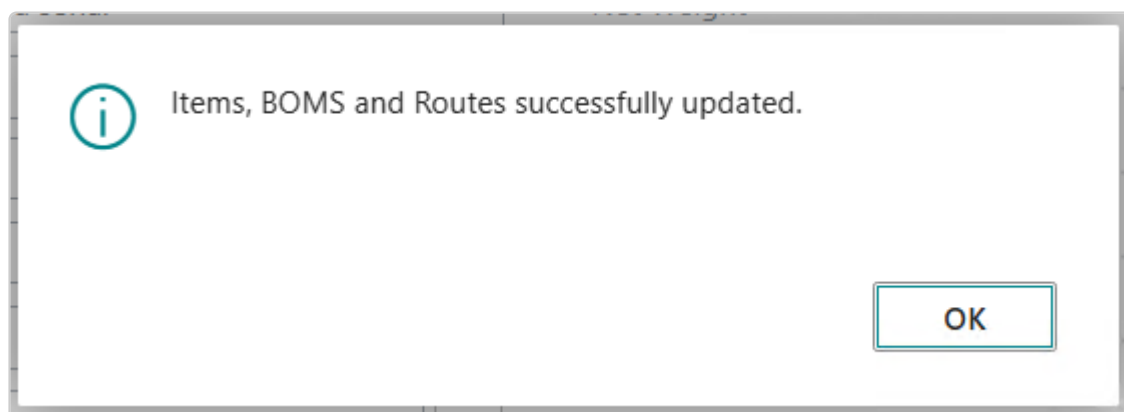
Next message if you want to update an existing BOM:



Next message if you want to update an existing routing:



And finally when the creation process has finished you will get this notice.



7.1.12. Using CadConnect with version control

Using CadConnect with version control

CadConnect supports version control on Bill of materials and routings as known in standard BC.

On top of this Item versioning has been added to the CadConnect application.

BC does not support item versions, so what you get is exclusively inside CadConnect.

You get the following three functions.

1. An archive (History) of all Item version that have been handled by CadConnect.

You find this archive here, under CadConnect – Item Versions



If you need the history somewhere else, the data can be extracted as any other data by using standard BC tools.



They are not included in the CadConnect Export to Excel function.

2. The archive data are used in CadConnect to show “Previous Version” on CadConnect lines for purchased items.

3. You can have CadConnect transfer a specific version no. as an Attribute on the BC Item card.

This is done by selecting in CadConenct Setup which attribute should be used.

CadConnect Setup

 Attribute Setup
  Dimension Setup
 | [More options](#)

NAVEKSA - CadConnect 23.10.02.11 >

General >

Templates >

Routing >

Certifications >

Version control

Use versions ☒

Item Version Attribute... Item Version

Item Version Attribute ... 51

Thus the application offers full item product versioning to be used throughout the entire BC-application.

When importing excel files a version number can be supplied from that file or you can update it manually on each line.

A few rules manage the use of versions:

- When importing an excel file into CadConnect, and this excel file contains a version number, the version number will be visible in the CadConnect header screen.
- If you create a product manually, you can assign a version number to the bill of material and or the routing
- When copying a product from BC, please bear in mind that it will be the active version (bill of material and routing) that will be copied.
- If you want to apply an effective date (version starting date) this can be selected
- If you want to add a specific routing version, this must be done by assigning a version number to the routing header item in the line section of the CadConnect screen.

In addition CadConnect searches for information / reference the previous version no. and if it is different from the newly imported version no. the new version no. will be marked in red.

The previous version is for production BOM items defined as the current active version in BC.

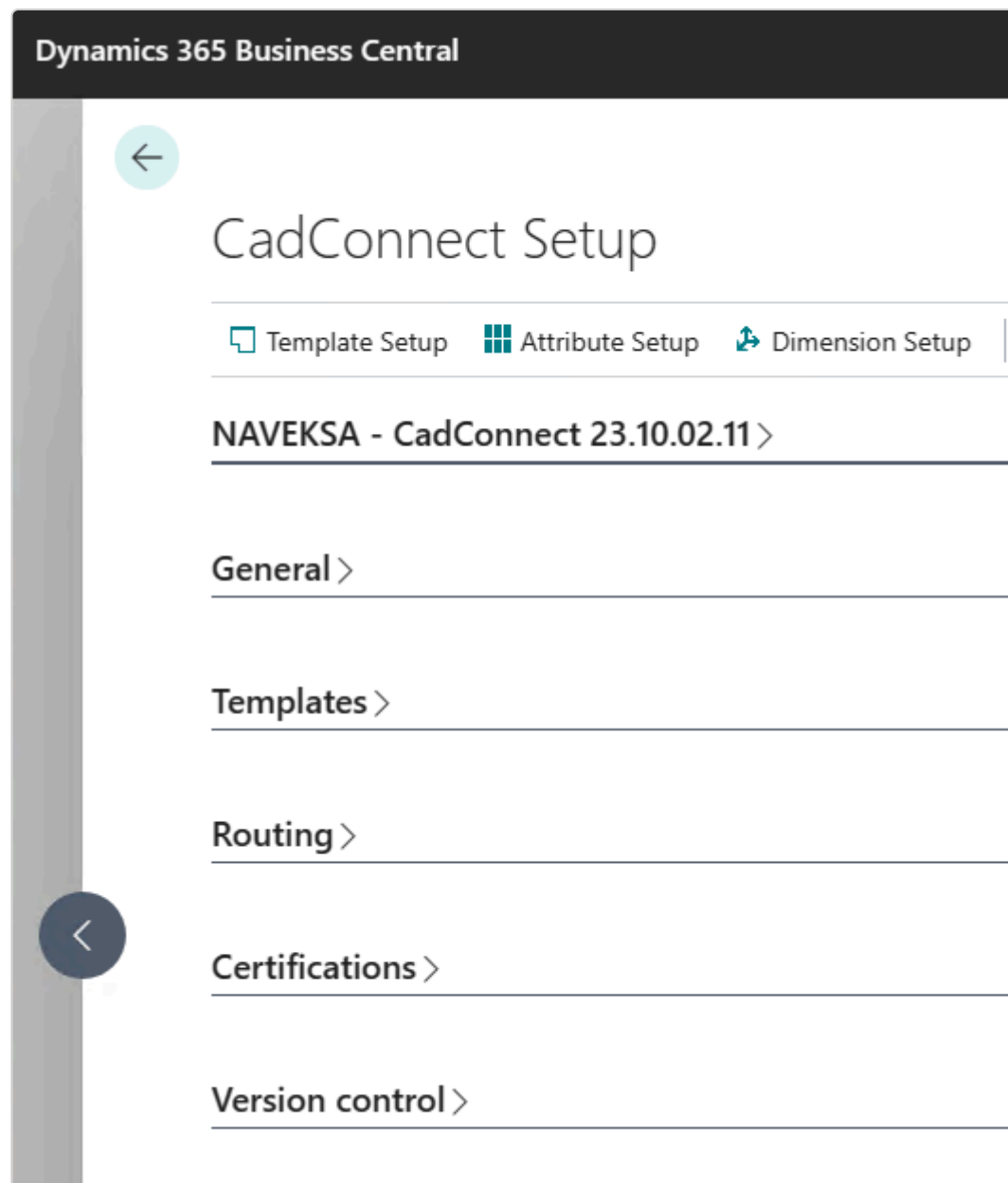
For purchased items, CadConnect looks in the CadConnect version archive for the latest version no. as mentioned above.




7.1.13. Using Item Attributes




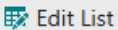




Using Item Attributes

General Idea is to be able to extend items created through CadConnect with values for different existing item Attributes.

Setup is made from the CadConnect Setup page:



CadConnect Attribute Setup ✓ Saved   

 Search  Analyze  New  Edit List  Delete   

	CadConnect Attribute No. ↑		BC Attribute	Attribute Name	Default Attribute
→	1	⋮	5	Beskrivelse af materiel	<input type="checkbox"/>
	2		1	Farve	<input type="checkbox"/>
	3		6	Modelår	<input type="checkbox"/>

You can set up until 80 different Attributes. Purpose of the Setup is to map Imported values with a specific BC Attribute.

You must supply CadConnect Attribute number with a sequential number starting with 1. Then you select the BC attribute number you want in CadConnect and the name of that attribute is shown automatically.

If you have Attributes, that will be used on all CadConnect constructions, you can mark these as “Default Attribute”.

Attributes with this mark will then be created automatically on each new CadConnect construction, and you will then only need to fill in the Attribute values.

As additional setup you can select to show the attributes on the CadConnect Lines.

This is for allowing you to modify the imported values or add new values on lines you create.

As default the Attributes are shown in a FactBox.

Finally you can setup whether existing attributes shall be updated on existing items, when the Creation is run from CadConnect

CadConnect Setup - NAVEKSA 8.09.03

Excel column definition Attribute Setup Actions Fewer options

GENERAL

CadConnect numbers	CADC	▼
CadConnect Surface Template	%1-%2	
Standard Import Format	Excel	▼
Excel import structure	One-Dim. Level	▼
Standard import file	<input type="checkbox"/>	
Default File Path & Name		
Default Sheet		
First Data row		0
First Row = Header Item	<input type="checkbox"/>	
Default UOM		
CadConnect Cost Incl. Setup	<input type="checkbox"/>	
BOM Type, creation	Prod.BOM	▼
Copy Prod.BOM Comments to Prod.order	<input type="checkbox"/>	
CCN Project	<input type="checkbox"/>	
XMLport ID	0	
Show Attributes on Lines	<input checked="" type="checkbox"/>	
Update existing Items	<input checked="" type="checkbox"/>	
Update attributes	<input type="checkbox"/>	

When you run the Import, you will be presented a new section with new fields according to the set-up attributes and you can specify where in the File your attribute values are:

CadConnect Excel data import ↗ ✕

Weight	<input type="text"/>
Component No.	<input type="text"/>
Version Code	<input type="text"/>
Position	<input type="text"/>
Position 2	<input type="text"/>
Position 3	<input type="text"/>
Starting Date	<input type="text"/>
Ending Date	<input type="text"/>
Length	<input type="text"/>
Width	<input type="text"/>
Depth	<input type="text"/>
Calculation Formula	<input type="text"/>
Unit Cost Price	<input type="text"/>

Attributes:

Color	<input type="text"/>
Description of Material	<input type="text"/>
Width	<input style="border: 2px solid cyan;" type="text" value="I"/>

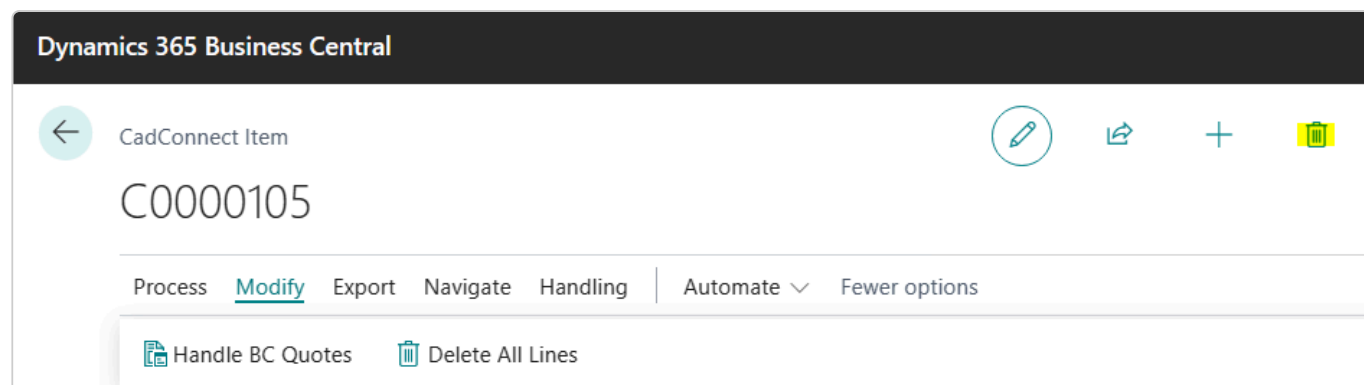
Lines Manage Insert Modelling Fewer options								
→	Type	Version	Ver. Start	Previous Version	Config.Temp.	Color	Description of Material	Width
	Route							
	Work Ce...							
	Work Ce...							
	Work Ce...							
	Work Ce...							
	Item				VARE000002			
	Route							
	Work C...							
	Machin...							
	Item				VARE000040			
	Item				VARE000040			
	Item				VARE000040			

7.1.14. Delete and delete all lines function

Delete and delete all lines function

When you work with a CadConnect construction you might want to delete the construction and start all over again. You can do this by clicking the standard “Delete” function in the ribbon (the garbage tray). This removes the construction from the system.

It might be you just want to delete all lines with the intention to re-import a cad-file. You can do this by clicking “Delete all lines” in the ribbon. This keeps the construction header but removes all lines.



7.1.15. Using Advanced templates

Using Advanced templates

If you are using standard templates for item creation, CadConnect offers you different possibilities to setup the usage of these Templates.

First of all, you will need to decide, whether you use Configuration Templates or Item Templates. Both as defined in standard BC.

This selection is made in CadConnect Setup:

The screenshot shows the 'CadConnect Setup' window. At the top, there are tabs for 'Attribute Setup', 'Dimension Setup', 'Automate', and 'Fewer options'. Below the tabs, the text 'NAVEKSA - CadConnect 23.10.02.10' is displayed. The 'General' section is expanded, showing the 'Templates' section. In the 'Templates' section, there are four rows of settings:

Use Template Type	Item Templates	Produced Item
Use advanced Templates	Config.Templates	Purchased Item
End Item	Item Templates	Assembly Item

Next you must decide, whether you use a simple set of templates or a more detailed set of templates.

If you only have 1 template per item type you can use the basic CadConnect Template setup.

Here you can setup 4 different templates as in the picture above.

One for each of the following item types:

- End-item (CadConnect header item)
- Produced item (CadConnect line item, for items with a prod.BOM)
- Purchased items (CadConnect line item, for items without a BOM, that is lowest level items)
- Assembly items (CadConnect line item, for items with an assembly BOM)

If this seems insufficient, you have the possibility to select the advance templates function in CadConnect Setup.

Please note that selecting the advanced Templates will add an additional Menu subject "Template Setup".

CadConnect Setup

Template Setup

Attribute Setup

Dimension Setup

Automate

NAVEKSA - CadConnect 23.10.02.10

General

Templates

Use Template Type

Item Templates

Use advanced Templates

General Idea is to set up combinations of up to 3 different values (Groups), which in combination points at a specific Configuration / Item Template. The Groups can express whatever needed for specifying a Template.

CadConnect Config. Templates

✓ Saved

Search

Analyze

New



Edit List

Delete


	Template Group 1 ↑		Template Group 2 ↑	Template Group 3 ↑	Item Template
→	A	:	B	C	VARE
	B		C	A	SERVICE
	478				TEMP1

Functionality:

When Advanced Templates has been selected, a few changes appears in the CadConnect System. The Import function now lets you specify where in your files the Template Groups are located

CadConnect Excel data import  

Weight	<input type="text"/>
Component No.	<input type="text"/>
Version Code	<input type="text"/>
Position	<input type="text"/>
Position 2	<input type="text"/>
Position 3	<input type="text"/>
Starting Date	<input type="text"/>
Ending Date	<input type="text"/>
Length	<input type="text"/>
Width	<input type="text"/>
Depth	<input type="text"/>
Calculation Formula	<input type="text"/>
Unit Cost Price	<input type="text"/>
Template Group 1	<input type="text"/>
Template Group 2	<input type="text"/>
Template Group 3	<input type="text"/>

Attributes: 

The CadConnect Lines then shows which Template Groups have been imported. You can change these values on the individual lines.

Lines Manage Insert Modelling Fewer options									
	Type	Previous Version	Config.Temp.	Template Group 1	Template Group 2	Template Group 3	Color	Description of Material	Width
✓	Route		ITEM000001	A	B	C			
	Work Ce...		ITEM000002	A	B				
→	Work Ce...		ITEM000003	F					
	Work Ce...								
	Work Ce...								
✓	Item		VARE000002						
✓	Route								

When Items are created then Template Groups on the Lines, if filled in, are used to lookup what Template to use.



7.1.16. Importing routings and operations in CadConnect.

Importing routings and operations in CadConnect.

You have the possibility to import either references to existing routings or new operations lines that then will end up as a new routing in CadConnect and BC.

You have one Setup Field to concern: Default Resource Type.

CadConnect Setup

 Attribute Setup  Dimension Setup | More options

NAVEKSA - CadConnect 23.10.02.11 >

General >


Templates >

Routing

Default Resource Type ··· Work Center

When you import operations and thereby resource no. the system will look in the Setup to define what type the resource should have.

In the import you specify just like all other imported values, where they are found, that is in which Excel column.

CadConnect Excel data import 

Design	
Width	
Depth	
Calculation Formula	
Unit Cost Price	
Lot Size	
Routing Link Code	

Routing/Operations

Routing No.	
Prod. Res. No.	
Oper. Description	
Setup Time	
Run Time	
Wait Time	
Move Time	

If you set an import reference for Routing No. then the values imported from that column must match an existing BC Routing. This will then be added as routing to the item found on the same line in Excel or the item found on the line just above the routing line, if there are no item reference in the Excel row with the Routing reference.

If you set import references for Prod.Res.No. then the values imported from that column must match an existing BC Resource of the type selected in Setup.

This will then be added as an operation to the item found on the line just above the first routing line. Additional lines will be added as operations on the same routing. The operations will be filled with relevant data from the columns specified in the following import references.

7.1.17. Simulate cost calculation when working on a construction.

Simulate cost calculation when working on a construction.

During working with a construction, it is possible to simulate on cost calculation as the work progresses. Please note: These calculation simulations are nothing but simulations. The simulated values can be exported through the standard CadConnect function “Export to Excel”, but the values will not be transferred to BC.

In the CadConnect Header you can see the following cost simulation fields, if you have selected the “Show more”-option:

Simulated Total Cost	191,20
Simulated Material Cost	37,50
Simulated Labour Cost	153,70

Values in these fields are calculated by summing up simulation values from the lines.

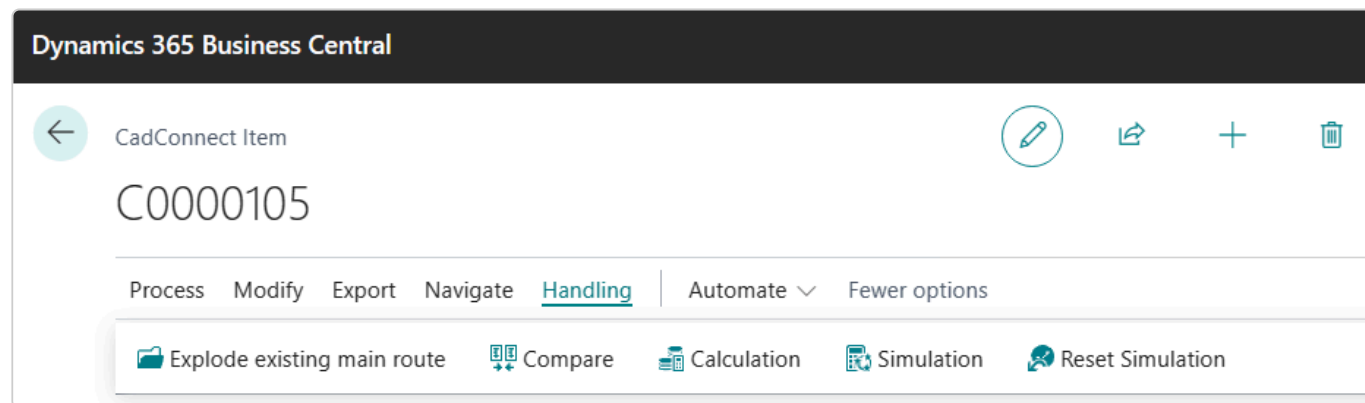
In the CadConnect Lines you see the following cost simulation fields:

! Please note: These fields are not shown by default. You must add these fields by using the Personalize function.

Unit Cost	Single-Level Material Cost	Single-Level Capacity Cost	Single-Level Subcontrd. Cost	Single-Level Cap. Ovhd Cost	Total Cost	Simulated Unit Cost	Simulated Single-Level Material Cost	Simulated Single-Level Capacity Cost	Simulated Single-Level Subcontrd. Cost	Simulated Single-Level Cap. Ovhd Cost	Simulated Total Cost
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

The “Simulated” fields can be altered completely free.

Whenever you want to see the consequences of your simulation, you select the simulation function by pressing the Actions, Simulation button and the total-values will be calculated.

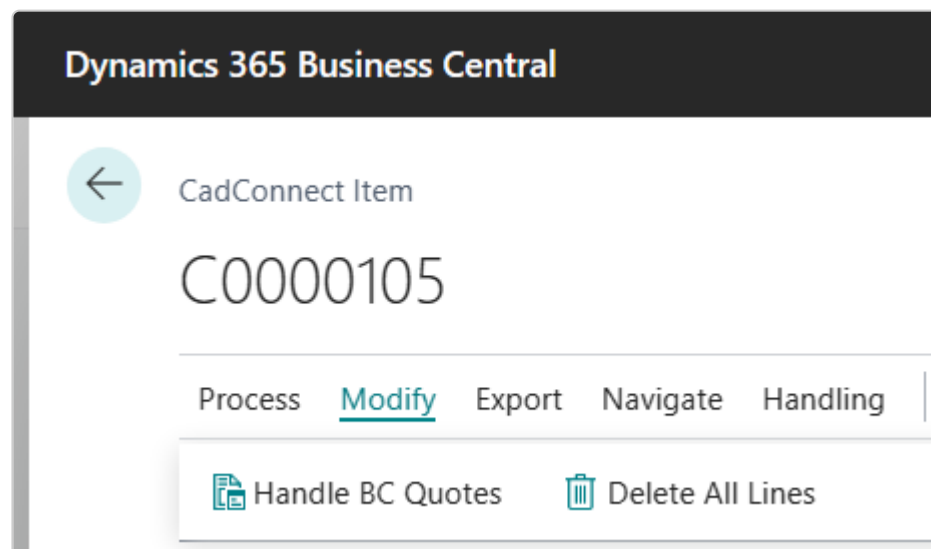


If you for some reason want to go back and redo everything, you can press the Actions, Reset Simulation button. As a consequence, all existing items will be updated with Unit Cost from the Item card, all operations will be updated with unit cost from the used Work Centre / Machine Centre and all new items will be updated with unit cost from the same CadConnect line.

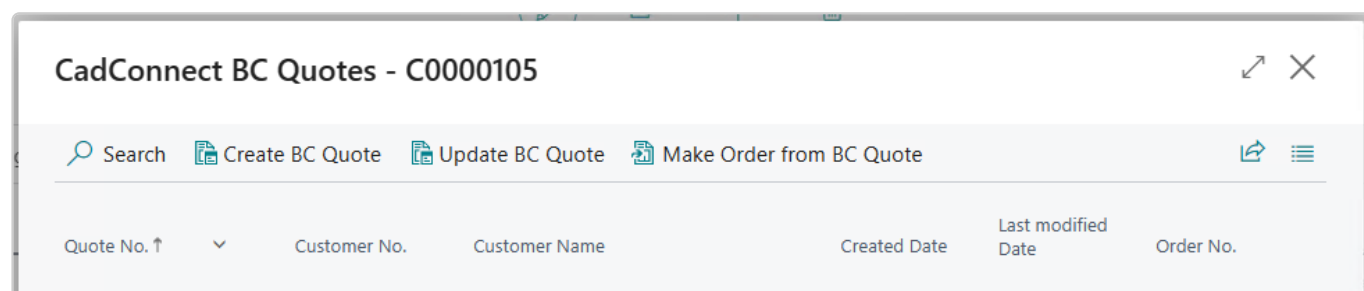
7.1.18. Creating BC quotes and orders from CadConnect

CadConnect has functionality to create BC quotes and orders based on a specific CadConnect construction.

When you have a CadConnect open you can select the menu item Handle BC Quotes.





This shows a list of all quotes created from this specific CadConnect, with the possibility to create a new quote, update an existing quote and/or make an order from a specific quote.



If you select to create a new quote, you will be asked to select the following:


- Which lines to create in the Quote
- Which customer shall receive the quote
- If you want any standard texts added to the quote.

Handle BC Quote from CadConnect




Options


Lines to create in Quote

Header Item 


Filter: Customer

× No.




 [Filter...](#)


Filter totals by:



 [Filter...](#)

Filter: Standard Text

× Code



 [Filter...](#)

Regarding Which lines to create in the Quote:

You must select which lines from CadConnect to be transferred to the quote.
Only the header Item, All level 0-items or All Item lines.

Options

Lines to create in Quote

Header Item ▼

Header Item

Level 0

All Lines

Filter: Customer

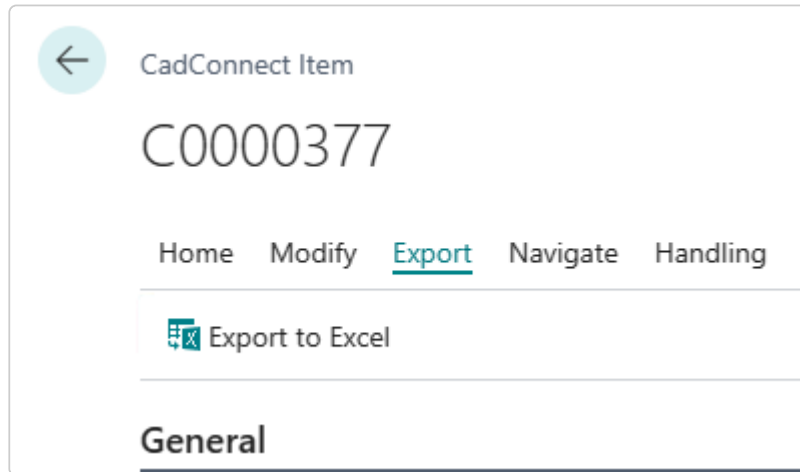
If you select All level 0-items or All Item lines CadConnect will in addition add a line with the description from the CadConnect header.

Please note, that existing items are created as Item-lines in the quote, whereas non-existing items are created as G/L-account lines, due to BC requirement of holding item numbers on existing items only.

7.1.19. Export CadConnect dato to Excel

If you want to do some more data-manipulation on yopur CadConenct data outside BC and CadConnect, you can export a specific CadConnect construction to Excel.

You do this from the menu item Export:



This function exports the following informations from the header:

- Item No.
- Description
- Unit of Measure
- Total Cost
- Material Cost
- Labour Cost
- Simulated Total Cost
- Simulated Material Cost
- Simulated Labour Cost

and from the lines:

- Type
- Level
- No.
- Description
- Description 2
- Gross Weight
- Net Weight
- Lot Size
- Item Replenishment System
- Quantity
- Unit of Measure
- Setup Time
- Run Time
- Vendor Number

- Unit Cost
 - + detailed fields for costing and simulation costing field.

8. Additional

Logic working with CadConnect constructions

! To avoid unintentional performed operations and possible subsequent BC data corruption, a number of logical limitations and rules have been applied to the application.

It is a complex arena seen from a data handling area, so we have made the necessary precautions to ensure data integrity.

You can read the operating rules in the subtopic – CadConnect rules.

8.1. CadConnect rules & logic

CadConnect rules

! Due to the fact that the CADCONNECT system and the BC system at all times need to be synchronous, there are certain limitations on what you can do logical wise when it comes to changing existing BOM and routings.

! This is mainly when you try to change existing items, BOM's and routings. If you are trying to do an improper or illegal operation, the system will issue a message – Warning or Error. Read on and find out what you can do and not do.

! Please notice that the Dynamics 365 Business Central in all respects, is the “Data Managing Director”

The basic rules

- You can change add/change/delete/indent in-out/move around etc. for a new construction (red items).
- If a blue line is involved (routing) you add/delete/change routing lines at 1st bill of material level only.
- You can change an existing BOM as long as you only deal with it as “SINGLE-LEVEL BOM” changes. That is add/delete/change/move up-down.
- BOM and routings can be added for purchased items. Depending on the “Replenishment system” the BOM and routing will be used or not in planning and orders.
- By selecting “Modeling” as shown in the following figure, it is now possible to move products and resources in more directions – indent in, indent out, move up, move down.*
- Components can be indented in and out if the item is not on the desired level of the BOM.
- Components can be moved up and down across BOM-levels, if the product is to be moved to another position in the bill of material.
- By selecting “Modeling” as shown in the following figure, it is now possible to move products and resources around.



From the CADCONNECT “Insert” function menu you have access to the following functions:

The functionality and the conditions are as follows:



Insert Item

a. Create a new line and set it to: type = Item.

b. Can be carried out without already existing lines that means as the first line.

c. Can be carried out on one line of the type “item” (=current item line).

i. Cannot be carried out on an item already existing in BC.

ii. A new line has to be inserted under the current item-line and has to be indented 1 level compared to the current item line, so that a new time line has to be considered as a BOM component, belonging to the current item line.

iii. If there are already existing item or operation lines on the same level, that means BOM components or operations to the current item line, a new line has to be inserted at the end on this level, belonging to the current item line.

d. Can be carried out on one line of the type work center or machine center (=current operation line).

i. Cannot be carried out, if the operation belongs to a routing that is already existing in BC.

ii. A new line has to be inserted under the current operation line on the same level as the current operation line. Consequently a new line has to be considered as a BOM component, belonging to the same item the operation is belonging to. When being created in BC, the operation and the new item (BOM) line are assigned the same routing link codes.

iii. If there are already existing item lines on the same level belonging to this operation, a new line is inserted at the end of this level, before any other next operation line.

e. Cannot be carried out on one line of the type “routing”.



Insert Operation

a. Create a new line and set it to the type = working center. The type can be changed to machine center.

b. Can be carried out without an already existing line – that means as the first line. Here the function will be the same, as “Insert 1. operation”.

c. Can be carried out on one line of the type item (=current item line).

i. Cannot be carried out on an item, which is already existing in BC.

ii. If this is the first operation line to a current item line before the operation line, a routing line has to be inserted with the same number as the current item line.

iii. A new line is inserted under the current routing of the item line and this has to be indented 1 level in relation to the routing, consequently a new operation line has to be considered as an operation line, belonging to a current item line routing.

iv. If there already are existing operation lines at the same level, that means operations for a current item line, a new line has to be inserted at the end of this level and before a possible later item line, belonging to the current item line.

d. Can be carried out on one line of the type Routing (=current routing line).

i. Cannot be carried out if the routing already exists in BC.

ii. A new line is inserted as the first line under the current routing line, and is indented 1 level in relation to the current routing line. Consequently, a new operation line has to be considered as an operation, belonging to the current routing line.

e. Can be carried out on a line of the type work center or machine center (=current operation line).

i. Cannot be carried out if the operation belongs to a routing, which is already existing in BC.

ii. A new line has to be inserted under the current operation line, on the same level as the current operation line. Consequently, a new operation line has to be considered as an operation, belonging to the same routing, as the current operation line.

Insert the 1. Operation

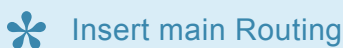
a. A new line has to be inserted on the top and of the type = Routing and number = item number from the header. Underneath 1 line of the type = work center has to be inserted.

b. This can only be carried out, if there are no lines, or if the first line = item.

Insert Routing

- a. Look ups have to be created in the overview over existing BC routes.**
- b. A new line has to be created and set to type = routing and number from the selected BC routing. Underneath lines have to be inserted, which are taken from a selected BC routing.**
- c. Can be carried out without already existing lines – that means as the first lines. Here the function will be the same as “Insert main routing”. d. Can be carried out on a line of the type item (=current item line).**
- i. Cannot be carried out on an item already existing in BC.
- ii. Cannot be carried out if there are already existing routing / operation lines on the same level – that means operation of the current item line.
- iii. New lines have to be inserted underneath the current item line and have to be intended 1 level in relation to the current item line in the way that a new routing line and operation line has to be considered as a routing and operation line, belonging to the current item line.

e. Cannot be carried out on a line of the type routing, work center or machine center.



- a. Look ups are made in the overview regarding existing BC routings.**
- b. A new line has to be inserted on top, of the type = route and number from the selected BC routing. Underneath lines have to be inserted, which are taken from a chosen BC routing.**
- c. Can only be carried out if there are no lines or if the first line = item.**



- a. Can only be carried out on a line of the type item (= current item line).**
- i. Cannot be carried out on an item already existing in BC.
- b. A new line is inserted above the current item line.**
- c. The current item line and all other underlying lines are indented 1 level, so that a new item line has to be considered as a BOM with the current item line as component.**