

User Manual

Subject XtensionIT – Multi Entity Management for Microsoft Dynamics 365 Business Central

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Table of Contents

1	Pre	eamble	3
2	De	finitions	3
2.1	1 Ma	aster Data	3
2.2	2 Tei	mplate Tables	3
2.3	3 Co	mpanies	4
2	2.3.1	Template Companies	/
		Template Companies	
2	2.3.2	Sub-Template Companies	4
2	2.3.3	Dependent Companies	5
2	lma	sert, Modify and Delete Records	
3		sert Records	
3.1	L ins	sert Records	5
3.2	2 Mo	odify Records	5
3.3	B De	elete Records	6
4		mplate Company	
4.1	1 Set	t up Template Company	7
4.2	2 Set	t up Template Tables	9
4.3	2 Sat	t up Template Table Fields	10
4.5) 36	t up Terripiate Table Fleius	10
4.4	4 Set	t up Associated Tables	13
4.5	5 Da	ita Usage Matrix	14
4	1.5.1	Open Data Usage Matrix	14



5	Dependent Company	17
5.1	Set up Dependent Companies	18
5.2	Assign Template Tables	20
5.3	Subscribing Data	21
5.4	Data Origin Matrix	22
5.	4.1 Open Data Origin Matrix	22
6	Send Data, Get Data	25
6.1	Send Data	26
6.2	Get Data	27
7	Replication Schema	29
7.1	Open Replication Schema	29
7.2	Set up Replication Schema	29
73	Assign Replication Schema	31



Preamble

Dear reader,

With this document, we are pleased to be able to provide you the current user documentation of Multi Entity Management, our Microsoft certified special solution for Microsoft Dynamics NAV.

Due to the process-oriented structure, this user documentation does not show all the details of the application. If you would like to receive information on individual windows, functions or fields, you can also use the online help.

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Our support team will be glad to help you with any questions.

Your XtensionIT ApS

2 Definitions

Multi Entity Management is an extension for Microsoft Dynamics NAV and offers the possibility to manage any master and setup data centrally and to make it available to other companies at runtime.

2.1 Master Data

G/L accounts, customers and vendors as well as items, dimensions and dimension values represent, among others, typical master data.

Supplementary master data, such as payment terms, reminder methods and payment methods, customer and vendor bank accounts, business and product posting groups, VAT business and VAT product posting groups can be assigned to these and other master data as required.

Setup data, for example, the G/L setup, customers and sales setup as well as vendors and purchases setup and the general posting setup and the VAT posting setup can be treated as master data in Multi Entity Management.

2.2 Template Tables



Tables store master data in a fixed structure. Template tables are all tables whose entries are being maintained in a Template or Sub-Template company.

2.3 Companies

In Microsoft Dynamics NAV, a company is created for each organization of a corporation or enterprise.

The company thus represents a completed unit in terms of data and organization that, in addition to the classic company code approach, also structures the master data on a company-by-company basis.

In the Role Center, a diagram of the existing company structure within the database can be displayed:

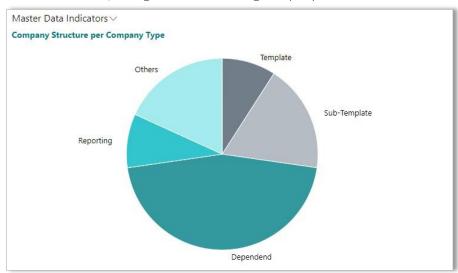


Figure: Company Structure view in Role Center

2.3.1 Template Companies

Typically, Template Companies are pure setup companies above the level of the operative companies.

Operational companies assigned to a Template Company can also be referred to as dependent companies.

A single Template Company or multiple Template Companies can be set up for all dependent companies but also a complex template hierarchy is possible with one Template Company and one or more Sub-Template companies. Generally, after the dependency has been set up all changes to the stored master data are made only from the Template or Sub-Template company and will then be synchronized into the operative or dependent companies.

2.3.2 Sub-Template Companies

The creation of Template Companies can be mapped over several hierarchy levels. This means that the top level, the Template Company itself contains all the central master data, whereas in the level below the

Page 4 of 32 XtensionIT ApS



SubTemplate companies only contain certain parts of the managed master data, which they provide to their assigned dependent companies.

2.3.3 Dependent Companies

Dependent companies are operative companies. They can be assigned to Sub-Template companies and/or Template Companies, and then obtain part of their master data from them.

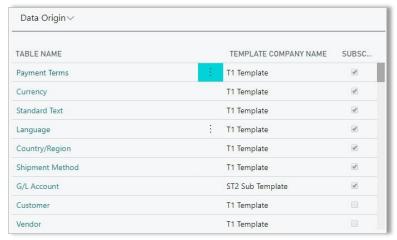


Figure: View Data origin in Role Center

3 Insert, Modify and Delete Records

This chapter describes how to insert, modify and delete records.

3.1 Insert Records

In dependent companies, no records can be inserted in template tables. New data records must be created in the respective parent Template Companies.

In the *data origin matrix,* it can be seen in which Template Company the insertion for the data in question can be made.

3.2 Modify Records

In dependent companies, no records can be changed in template tables. Exceptions are fields in template tables, which are not checked in the *transfer at modify* field.

Page 5 of 32 XtensionIT ApS



In the *data origin matrix,* it can be seen in which Template Company the modification for the data in question can be made.



Figure: Window Template Table Fields, Fields of the Table Payment Terms

3.3 Delete Records

In dependent companies, deleting records from template tables is not allowed. The deletion of records in template tables can only be done in the Template Companies.

The deletion of records should only be carried out in exceptional cases, as existing allocations to other tables will no longer exist. This not only affects Multi Entity Management, but also generally applies to the entire application.

4 Template Company

Template companies are companies in which central master data is managed, that is created and modified. Template companies thus make master data available to other dependent or operative companies.

The structure of Template Companies can be mapped hierarchically, i.e. over several levels. Here, the top level, i.e. the Template Company itself, contains all central master data, while in an underlying hierarchical level, in Sub-Template companies, exist only certain parts of the data managed in the Template Company, which they provide to the dependent or operative companies.



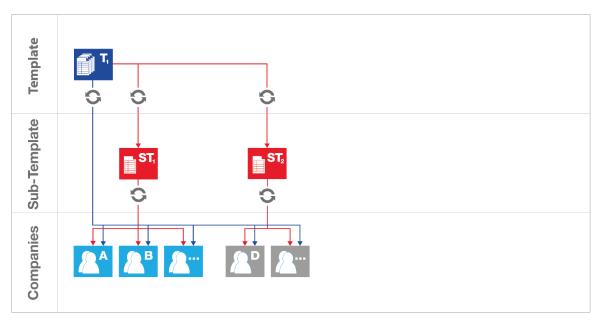


Figure: Hierarchical structure with template- and Sub-Template companies

4.1 Set up Template Company

The setup of companies is ideally carried out hierarchically from top to bottom, i.e. first, the Template Company, subsequently possibly required Sub-Template companies and then the dependent or operative companies are set up.

You can set up a Template or Sub-Template client via the navigation area *Multi Entity Management, Template Company Setup*



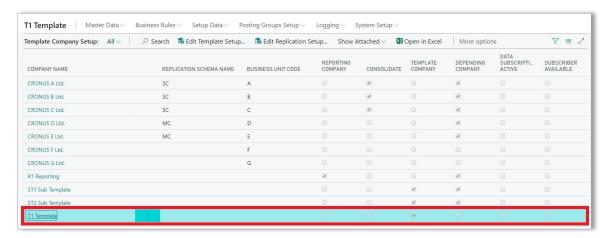


Figure: Template Company Setup

The company to be set up as a Template or Sub-Template Company must be clicked. Then click on the *Edit* icon in the group *Manage*, in the menu bar.

The window *Template Setup Card* will open:

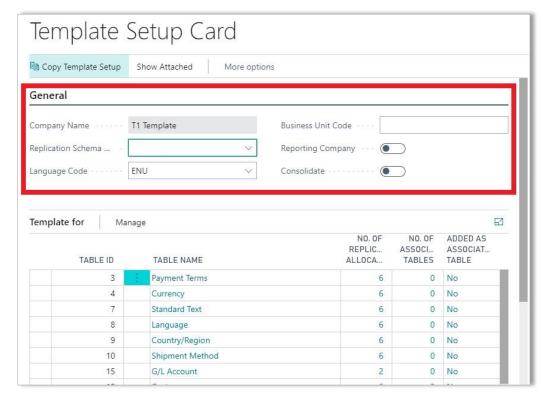


Figure: Window Template Setup Card



When setting up a Template or Sub-Template Company, the following settings should be considered:

Field	Description
Company Name	The current company name is displayed here.
Replication Schema	The Replication Schema is used to simplify the configuration of companies, see Chapter 7.
Business Unit	Enter a unique code to merge this company's entries into one or more reporting companies. You can use the business unit to identify the entries.

Subsequently, the template tables are entered, i.e. the tables are assigned to the Template or Sub-Template companies whose master data is to be centrally managed and made available to other companies.

4.2 Set up Template Tables

Template tables are assigned to a Template or Sub-Template company. They contain the master data that is to be managed centrally and made available to other clients.

You can set up the template tables for a Template or Sub-Template client using the navigation *Multi Entity Management, Template Company Setup, Template Setup Card*

Click on the Template or Sub-Template company whose template tables are to be set up.



The window *Template Setup* will open:

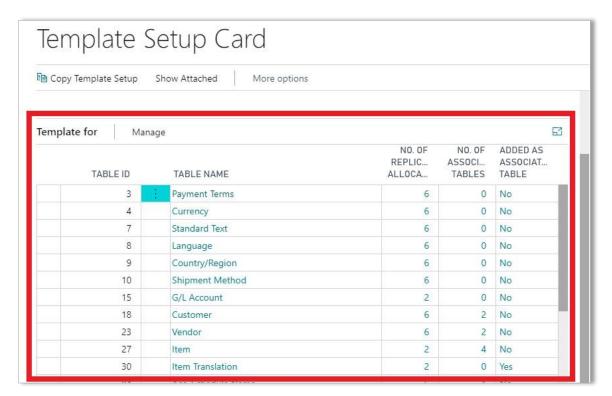


Figure: Window Template Setup

All the tables that are to be managed centrally in this template Company are entered in the *Template for* info register.

The following settings must be taken into account when assigning the tables:

Field	Description
Table ID	This is the object number of the table. The selection of the tables is available via the lookup button [F4].
Table Name	The field fills automatically and contains the name of the table.

Subsequently, the fields of the respectively assigned tables (template table fields) can be parameterized.

4.3 Set up Template Table Fields



The individual fields of the template tables assigned to a Template or Sub-Template Company can be parameterized differently.

The template table fields of a Template or Sub-Template company are set up via the *Template Setup* window:

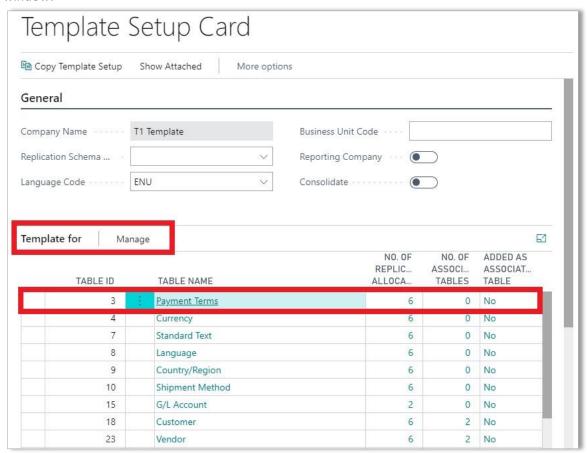


Figure: Window Template Setup Card

In the *Template for* info register, first select the table whose table fields you want to edit. Then *Manage* in the same info register and then click *Fields*.



The window *Template Table Fields* will open:

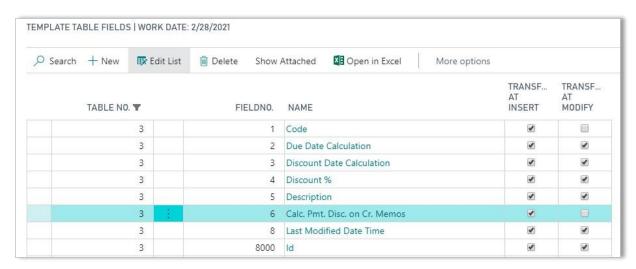


Figure: Window Template Table Fields

When parameterizing the fields of a table, the following settings must be taken into account:

Feld	Description
Table No	This is the object number of the template table whose fields are displayed.
Field No	Specifies the number of the field of the template table.
Name	The field fills automatically and contains the name of the field.
Transfer at Insert	The field content of the data record is transferred to the dependent company during the transfer.
Transfer at Modify	The field content of the data record is transferred to all dependent companies during a subsequent change. If this checkmark is set, the field content in a dependent company cannot be changed. If the field content is to be changeable in dependent companies, no checkmark must be set here.

The checkmarks in the fields *Transfer at Insert* and *Transfer at Modify* are automatically preassigned.

New fields that are added to a table by later customizations do not automatically appear in that table and must be added as needed.



4.4 Set up Associated Tables

Associated tables are tables whose own primary key points to another table, i.e. data can only be acquired in related tables when they are associated to the other table.

Typical examples of related tables are

- → Delivery addresses of a customer,
- → Order addresses of a vendor,
- → Variants of an item,
- → Bank accounts of a customer or Bank accounts of a vendor.

Related tables must be set up so that they are recognized as an extension of a data record (for example, bank accounts of a customer or vendor) and are automatically taken into account during data transfer.

The setup of related tables is done via the window *Template Setup*:

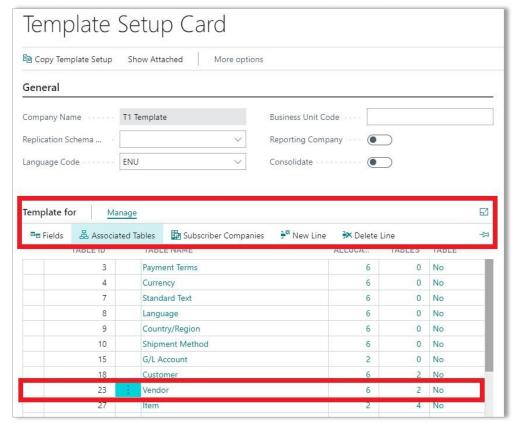


Figure: Window Template Setup



In the info register *Template for*, first select the table whose table fields you want to edit. Then select *Manage* in the same info register and then click on *Associated Tables*.

The window Associated Tables will open:

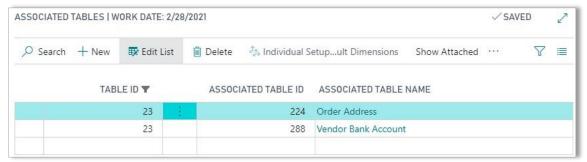


Figure: Window Associated Tables

When setting up related tables, the following settings must be taken into account:

Feld	Description
Table ID	The field is filled automatically. This is the object number of the table whose related tables are displayed.
Associated Table ID	This is the object number of the related table. The selection of the tables is available via the lookup button [F4]. If an associated table is set up, it is automatically entered as a
	table in the "Template for" info register. This is done so that the fields of the related table can also be parameterized.
Associated Table Name	The field fills automatically and contains the name of the associated table.

Related tables are automatically added as a template table in the *Template for* tab.

4.5 Data Usage Matrix

In the *Data Usage Matrix*, the data fields of a data record are displayed for the currently open Template or Sub-Template Company as well as for the next subordinate level with the field values there.

4.5.1 Open Data Usage Matrix

The Data Usage Matrix is available for the following tables and their data records:



- → G/L Account,
- → Customer and Vendor,
- → Item,
- ♦ Account scheme and column layout and Dimension and Dimension Values.

The *Data Usage Matrix* can be opened via the respective window. To do this, first click on the dataset whose usage is to be displayed. Then click on the Data usage matrix symbol in the Multi Entity Management menu bar:

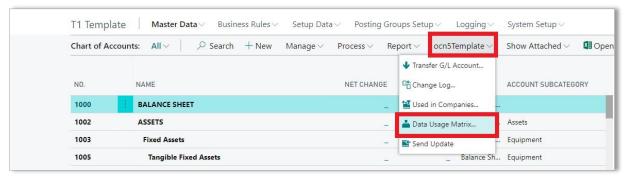


Figure: Window Chart of Accounts



The window Data Usage Matrix will open:

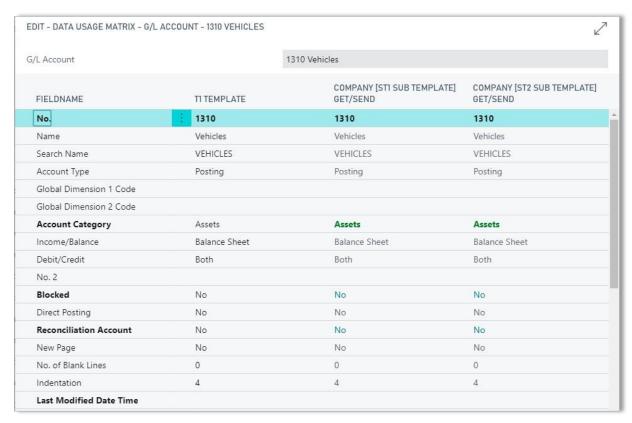


Figure: Window Data Usage Matrix

When displaying the Data Usage Matrix, different colors are used that have the following meaning:

Column Fieldname:

Column <i>Fieldname</i>	Description
Red, bold and italic	Fields of the so-called primary key. Changes are not allowed, as this would correspond to renaming the record.
Black, bold	For these fields, the field <i>Transfer at Modify</i> is not set in the curre company, i.e. these fields may be changed in the dependent companies of the next hierarchy level.

Columns for Companies:



Columns Companies	Description
Red, bold and italic	Fields of the so-called primary key. Changes are not allowed, as this would correspond to renaming the record.
Grey	Field contents may not be changed in the respective company. The field contents come from the assigned Template or SubTemplate company.
Black	Field contents may be changed in the respective company.
Blue	For these fields, the field <i>Transfer at Modify</i> is not set in the corresponding Template Company, i.e. these fields may be changed in the dependent company of the next hierarchy level.
Green, bold	The fields <i>Transfer at Insert</i> and <i>Transfer at Modify</i> are not set for these fields in the corresponding Template Company, i.e. these fields may be changed in the dependent companies of the next hierarchy level.

5 Dependent Company

Dependent clients are operating organizations. They can be assigned to both Sub-Template and Template Companies and then derive at least part of their master data from them.



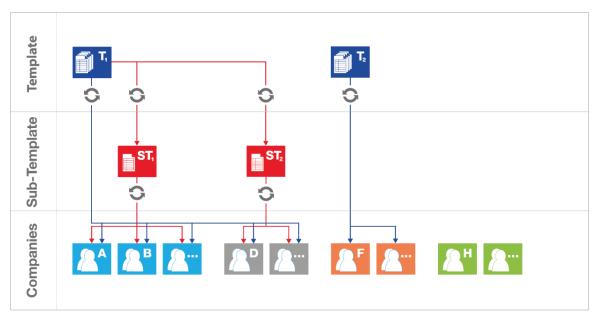


Figure: Multiple Template Structure

5.1 Set up Dependent Companies

The establishment of companies is ideally hierarchical from top to bottom, i.e. first the Template Company, then possibly required Sub-Template companies and then set up the dependent or operational companies.

You can set up a dependent or operative company using the navigation area *Multi Entity Management, Template Company Setup*

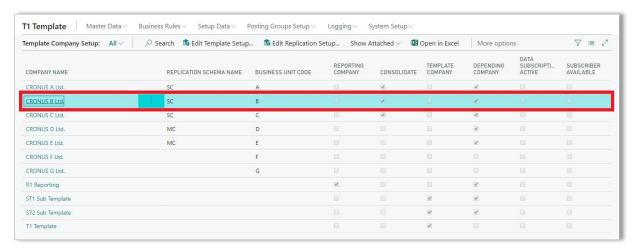


Figure: Overview Template Company Setup

Page 18 of 32 XtensionIT ApS



The company that is to be set up as a dependent or operational company must be clicked. Then click on the *Edit* icon in the menu bar of the *Manage* group.

The window *Template Setup* will open:

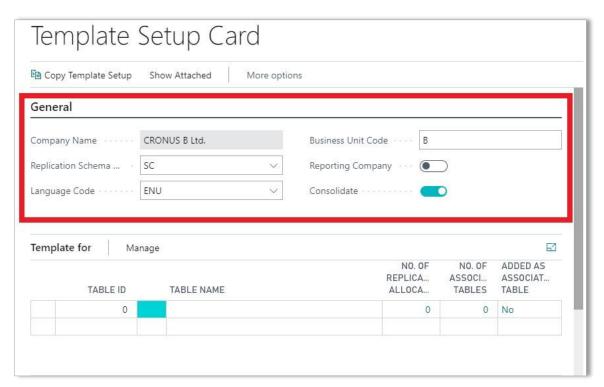


Figure: Window Template Setup

When setting up a dependent or operative company, the following settings must be taken into account:

Field	Description
Company Name	The current company name is displayed here.
Replication Schema	The Replication Schema is used to simplify the configuration of companies, see Chapter 7.
Business Unit	Enter a unique code to merge this company's entries into one or more reporting companies. You can use the business unit to identify the entries.



5.2 Assign Template Tables

Template tables are assigned to a dependent company, whose data the dependent or operative client is to obtain from a Template or Sub-Template client.

You assign the template tables to a dependent or operative company using the navigation area the navigation area *Multi Entity Management, Template Company Setup*

The dependent or operative company to which template tables are to be assigned must be clicked. Then, in the menu bar of the group *Transaction*, click on the *Edit Template* icon.

The window Template Setup will open:

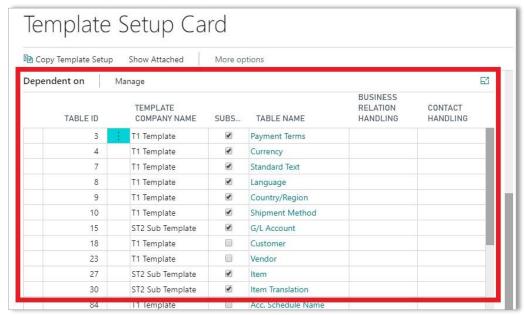


Figure: Window Template Setup

In the *Dependent on* information tab, all tables are assigned whose master data the dependent or operative company is to receive from a Template or Sub-Template company.

The following settings must be taken into account:

Field	Description
Table ID	This is the object number of the table. The selection of the tables is available via the lookup button [F4].

Page 20 of 32 XtensionIT ApS



Table Name	The field fills automatically and contains the name of the table.
Template Company Name	At this point, the Template Company or, if applicable, Sub-Template company is selected to provide the data. The Lookup button displays all possible template and Sub-Template companies. After the company has been assigned, the application checks whether data records already exist in the dependent company for the selected table. If this is the case, a note appears and the assignment is not possible. Conflicts have to be resolved manually before an assignment can be made.
Subscribe	If you check this box, the data are permanently sourced from the Template or Sub-Template company, i.e. new records from this table are automatically written to the dependent company. By subsequently removing and re-setting the check mark, the transmission can be forced repeatedly.
Individual Data	Check this box if you want to allow individual master data in the operative company of this table despite the dependency on a Template Company. When entering individual data in the operative company, the system checks whether this master data is already being used in the Template Company.

5.3 Subscribing Data

Is there a check mark in the *Subscribe* field for one dependent or operative company in the *Dependent on* info tab for one or more template tables, this means that new data records of these tables are automatically written to the dependent or operative company.

Subsequent removal and re-ticking of the check mark will cause the transfer to take place again.



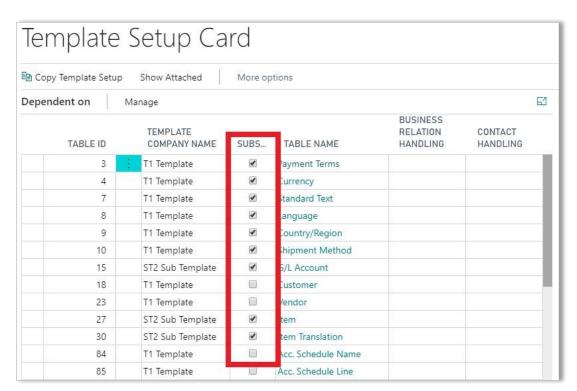


Figure: Window Template Setup Card

The check mark *Subscribe* applies to all tables that do not have a separate "get and send function". Excepted the tables

- **♦** G/L Account,
- ★ Customer and Vendor,
- → Item,
- ♦ Account schedule and column layout as well as Dimension and Dimension Values.

5.4 Data Origin Matrix

In the *Data Origin Matrix*, the data fields of a data record for the currently opened company and all higherlevel Template or Sub-Template companies are displayed with their field values.

5.4.1 Open Data Origin Matrix

The data origin matrix is available for the following tables and their data records:

- → G/L Account,
- → Customer and Vendor,



- → Item,
- ♦ Account schedule and column layout as well as Dimension and Dimension Values.

The *Data Origin Matrix* is retrieved via the respective window. To do this, first click on the record whose origin you want to display. Then click on the symbol *Data Origin Matrix* in the group *Multi Entity Management* in the menu bar:

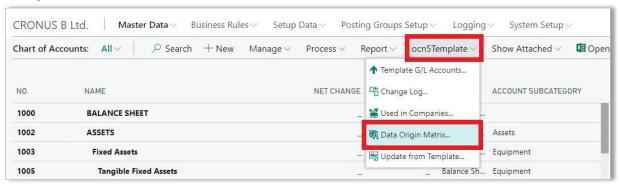


Figure: Window Account Schedule



The window Data Origin Matrix will open:

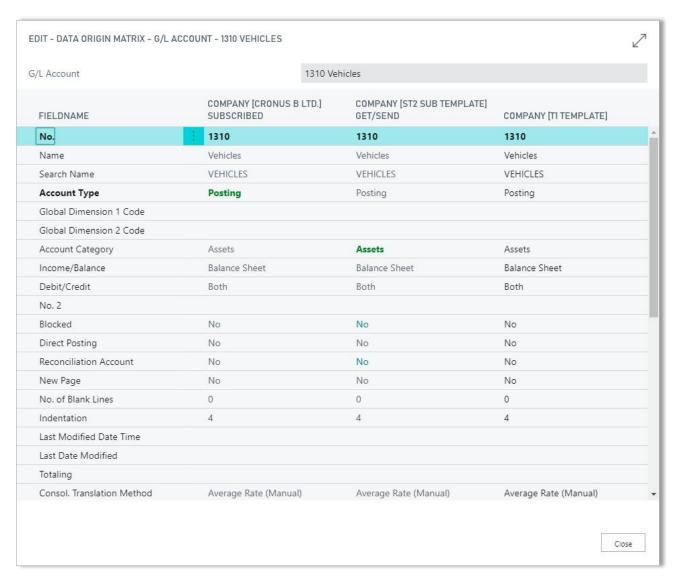


Figure: Window Data Origin Matrix

In the Data Origin Matrix are different colors used which have the following meanings:

Column Fieldname:



Page 24 of 32 XtensionIT ApS



Red, bold and italic	Fields of the so-called primary key. Changes are not allowed, as this would correspond to renaming the record.
Black, bold	For these fields, the field Transfer at Modify is not set in the current company, i.e. these fields may be changed in the dependent companies of the next hierarchy level.

Columns for Companies:

Columns Companies	Description
Red, bold and italic	Fields of the so-called primary key. Changes are not allowed, as this would correspond to renaming the record.
Grey	Field contents may not be changed in the respective company. The field contents come from the assigned Template or SubTemplate company.
Black	Field contents may be changed in the respective company.
Blue	For these fields, the field <i>Transfer at Modify</i> is not set in the corresponding Template Company, i.e. these fields may be changed in the dependent company of the next hierarchy level.
Green, bold	For these fields, the fields Transfer at Insert and Transfer at Modi are not set in the corresponding Template Company, i.e. these fields may be changed in the dependent companies of the next hierarchy level.

6 Send Data, Get Data



Unnecessary master data in dependent or operative companies often prevents clear and smooth work. An essential approach of Multi Entity Management is that these companies work only with the data they really need.

Since the amount of data required is changeable, dependent companies can fetch missing data from their Template or Sub-Template companies in an active process. Template companies can proactively send new data to all or selected downstream companies.

6.1 Send Data

New data records that are created in Template or Sub-Template companies can be transferred to dependent or operative companies. This functionality is available for the following tables and their data records:

- → G/L Account,
- → Customer and Vendor,
- ◆ Item,
- ♦ Account schedule and column layout as well as Dimension and Dimension Values.

To do this, call up the respective window of the table from which data records are to be sent to dependent or operative companies in the Template or Sub-Template company.

In the example below, two records to be sent are selected in the *Chart of Accounts* window. Then, in the menu bar in the *Multi Entity Management* group, click on the *Transfer G/L Account* icon:

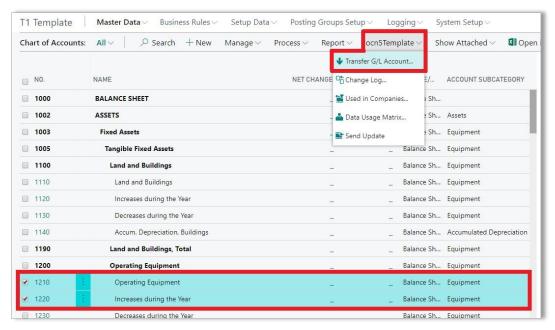


Figure: Window Chart of Accounts

Page 26 of 32 XtensionIT ApS



The *Company Selection List* window opens, in which the companies are marked, in which the data records to be transferred can be sent:

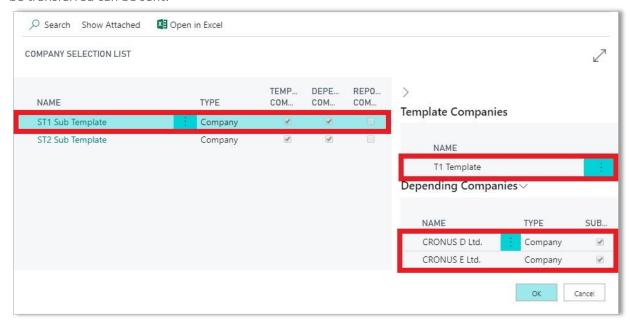


Figure: Window Company Selection List

The Company Selection List window contains two info boxes that provide the following information:

Info box	Description
Template Companies	This info box lists the respective Template Company from which the selected company receives its master data, in this case for the G/L accounts table.
Dependent Companies	This info box lists all dependent companies that receive master data, in this case for the G/L accounts table, from the selected company, if this is a Template or Sub-Template company. The Subscribe field shows whether the dependent companies automatically receive new master data from the selected Template or Sub-Template company.

6.2 Get Data

Data records that are required in Sub-Template companies or dependent or operative companies but are not available can be retrieved from Template or Sub-Template companies.

Page 27 of 32 XtensionIT ApS



This functionality is available for the following tables and their datasets:

- → G/L Account,
- → Customer and Vendor,
- → Item.
- ✦ Account scheme and column layout as well as Dimension and Dimension Values.

For this purpose, in the Sub-Template companies or dependent or operative companies in the window of the respective table, you can directly access the data records of the hierarchically superior company in order to search for and transfer missing data records, i.e. to get the data.

In the following example, the *Chart of Accounts* of the hierarchically superior Template Company is accessed in the *Chart of Accounts* window. To do this, click on the symbol *Template G/L Accounts* in the menu bar in the group *Multi Entity Management*:

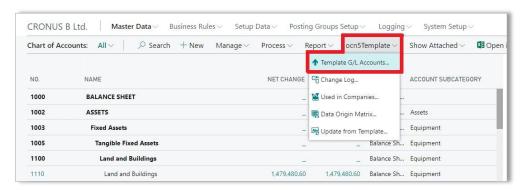


Figure: Window Chart of Accounts

The "Chart of Accounts" window then opens in the Template or Sub-Template Company, in which the missing G/L accounts can be searched for, selected and transferred.



7 Replication Schema

Replication Schemas simplify the setup of dependent or operative companies, since the assignment of the template tables is not done individually per company, but only once via the Replication Schema, which is only assigned to the dependent or operative company.

7.1 Open Replication Schema

You can open Replication Schemas using the button in the navigation area *Multi Entity Management, Replication Schema*

The window Replication Schema Names will open:

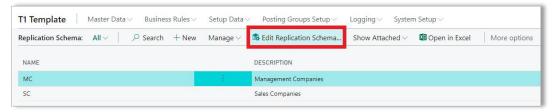


Figure: Window Replication Schema Names

7.2 Set up Replication Schema

The Replication Schema to be set up is to be clicked. Then click on the *Edit Replication Schema* icon in the group *Process* of the menu bar.



The window Replication Schema will open:

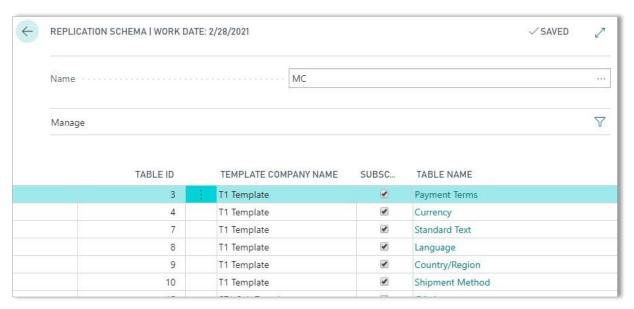


Figure: Window Replication Schema

All template tables whose data are to be obtained from a Template Company and / or, if applicable, SubTemplate company are assigned to a replication scheme.

The following settings must be taken into account:

Field	Description
Table ID	This is the object number of the table. The selection of the tables is available via the lookup button [F4].
Table Name	The field fills automatically and contains the name of the table.



Template Company Name	At this point, the Template Company or, if applicable, Sub-Template company is selected to provide the data. The Lookup button displays all possible template and Sub-Template companies. After the company has been assigned, the application checks whether data records already exist in the dependent company for the selected table. If this is the case, a note appears and the assignment is not possible. Conflicts must be resolved manually before an assignment.
Subscribe	If you check this box, the data from the Template or Sub-Template company will be permanently sourced, i.e. new data records of this table are automatically written to the dependent company. By subsequently removing and re-setting the check mark, the transmission can be forced repeatedly.

Changes to the Replication Schema always have a direct impact on all companies that are assigned to this schema.

7.3 Assign Replication Schema

All dependent or operative companies that are to be set up based on a Replication Schema must be assigned to the respective Replication Schema.

The assignment of a Replication Schema to a dependent company is carried out via the button in the navigation area *Multi Entity Management, Template Company Setup*:

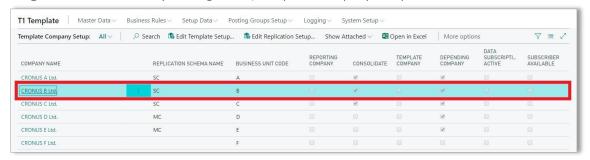


Figure: Overview *Template Setup*

The dependent or operative company to be assigned to a replication scheme is to be clicked. Then click on the *Edit Template Setup* icon in the *Manage* group of the menu bar.



The window *Template Setup* will open:

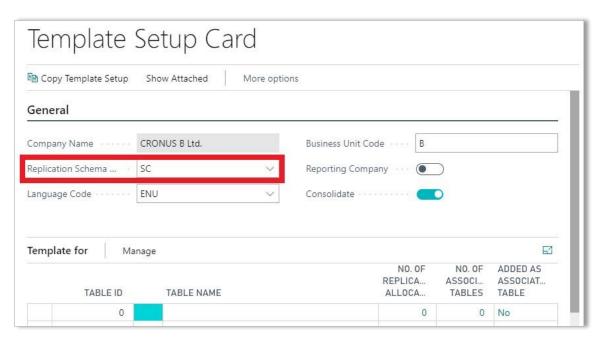


Figure: Window Template Setup

The following settings must be taken into account:

Field	Description
Replication Schema Name	Select the Replication Schema on which the dependent company should be to depend on template tables. The selection of the
	tables is available via the Dropdown button.

Using a Replication Schema makes it impossible to change template tables individually in the dependent company. Changes to the Replication Schema always have a direct impact on all clients that are assigned to this schema.