



WHITE PAPER

TRIMIT REPLICATION OF DATA 24.1

This document contains information about the Replication of Data functionality in TRIMIT 24.1 for Microsoft Dynamics 365 Business Central 2024, Wave 1 (W1).

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INTRODUCTION

When working with different companies (and perhaps different databases), it might be necessary to copy information from one company to another company.

Especially in an Intercompany setup, where one company is leading (this is the company where the design, purchase and production takes place) and the other companies are only sales companies, the information of the Head Office needs to be copied to the Sales Offices.

Or you could think of the information that you want to copy from a Live database to a Test database.

For this purpose, we have created the **Replication** functionality: to be able to copy Table content between companies in the same database without special validations (as is the case when using Configuration Packages), but also to copy Table content between databases.

The **Replication** functionality is also able to copy/update only the changed data since last Replication run (which is also not possible when using the Configuration Packages).

It will also be possible to schedule the execution of the Replication by using Job Queues.

The company from which data will be copied is called **Publisher Company** (i.e., the Head Office in an Intercompany structure).

The company to which data will be copied is called the **Subscriber Company** (i.e., the Sales Offices in an Intercompany structure).

You can use the TRIMIT Replication tool for several types of Databases:

Scenario	Publisher Company	Subscriber Company
1	On-premise	On-premise
2	On-premise	Cloud
3	Cloud	Cloud
4	Cloud	On-premise

Scenario 4 does not work!!

Since it is the **on-premise** that has to ask a **Cloud** for the Data, there are issues with setting up OAuth (callback) in the on-premise, which is the reason it will not work.

The audience for this document is the Consultant or very skilled User.

It will only describe the TRIMIT fields/functionality and not the standard Business Central fields/functionality.

Be aware of not changing settings and parameters in a live database without consulting the implementing partner.

The functionality described is the functionality as of **TRIMIT 24.1 for Business Central W1 BC24.X**.

The pictures in this White Paper are based on the demo database for **TRIMIT 24.1**, which is based on Microsoft Dynamics 365 Business Central 2024 Release Wave 1, in the demo company **CRONUS TRIMIT W1 Ltd.** (based on CRONUS International Ltd. of Microsoft Dynamics 365 Business Central).

COMPONENTS

TRIMIT Replication contains the following objects:

The tables	6036517	<i>trm Connection Setup</i>
	6036534	<i>trm Replication Publish Header</i>
	6036635	<i>trm Replication Publish Lines</i>
	6036536	<i>trm Replication Publish Fields</i>
	6036537	<i>trm Replication Subscriber</i>
	6036538	<i>trm Replication Log</i>
	6036539	<i>trm Replication Error Log</i>
	6036540	<i>trm Repl Item Structure Param.</i>
	6036541	<i>trm Repl AutoIncr Conversion</i>
	6036542	<i>trm Replication Publish Filter</i>
	6036543	<i>trm Replication Plan</i>
	6036544	<i>trm Remote Repl Triggers</i>
The pages	6036535	<i>trm Replication Publisher List</i>
	6036536	<i>trm Replication Publish Header</i>
	6036537	<i>trm Replication Publish SubPag</i>
	6036538	<i>trm Replication Publish Fields</i>
	6036539	<i>trm Replication Subscriber</i>
	6036540	<i>trm Replication Log</i>
	6036541	<i>trm Replication Error Log</i>
	6036542	<i>trm Replication Publish Lines</i>
	6036543	<i>trm Repl Item Structure Param</i>
	6036544	<i>trm Connection Setup Card</i>
The codeunits	6036532	<i>trm Replication Handling</i>
	6036533	<i>trm Repl Log Handler SI</i>
	6036534	<i>trm Repl Trigger Handler</i>
	6036535	<i>trm Repl Item Structure Events</i>
	6036536	<i>trm Communication Handler</i>
	6036537	<i>trm Remote Repl Handling</i>
	6036538	<i>trm Remote Replication Actions</i>

SETUP REPLICATION PUBLISHER

The **Publisher Company** is the company from which data will be copied.

Therefore, the **Replication Publisher** needs to be created in the **Publisher Company** (Head Office) via **Search Replication Publisher**.

See [Actions – Create Replication Setup from Template](#) for automatically creating a **Code** specifically for replication Master/Item data.

Replication Publishers

✓ Saved

DESCRIPTION OF THE FIELDS

CODE

A **Code** for this Replication Publisher.

You can create several codes for different purposes.

DESCRIPTION

A **Description** for this Replication **Code**.

REPLICATION

With the content of the field **Replication**, you can determine how the copy should take place.

You can choose between the following three options:

Automatic	This means that the system will keep track of changes in the Publisher Company in the Replication Log, and only sent changed Records to the Subscriber Company when required. This has a performance impact as there is a log of all changes related to the tables in the Replication Publisher (typically used for data like Items/Masters/Customers, etc.) for which you want to keep the data coordinated
Manual	This means that you can Replicate the Tables, but it will be a full Replication each time. This could be used for data as a template. I.e., we have a standard Chart of Account which we want to replicate each time we create a New Company, but after it replicated it will not keep track of changes, and there will be no synchronization of data. (This is i.e., the setting that TRIMIT uses for copying demo data from the demo server to a new created demo site)
Deactivated	This means no data will be sent if a Subscriber tries to replicate

NOTE

When creating a **Replication Publisher**, you need to be aware of all related Tables that might be necessary and need to be added as well.

Also, keep in mind that the Replication functionality will simply write or overwrite existing data; even if you have changed the data in the receiving Company.

ENABLE REMOTE REPLICATION

If you want to use this **Replication Subscriber** for replicating data from one database to another database, you need to have a checkmark in this field.

MAX. NO. OF RECORDS TO REPLICATE

If **Enable Remote Replication** is set to *Yes*, you can enter the maximum number of records that can be replicated in one call of the Replication. The default will be set to *2000*.

This is a technical setup that will separate the call for Replicating data into several calls, each with a maximum of i.e., 2000 records.

The Replication engine will then call in a loop until all the waiting data (in the Replication Log) is copied (transferred).

The reason for doing so, is to limit the quantity of data that needs to be moved over the Internet; only important if **Enable Remote Replication** is set to *Yes*.

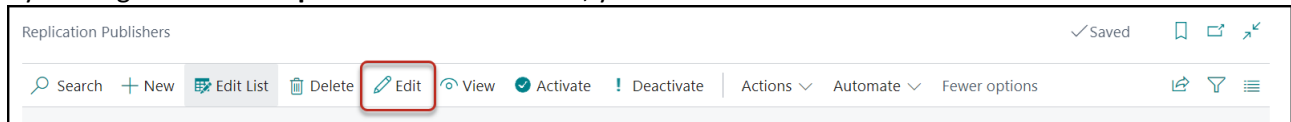
The setting of 2000 records is for Replication between two on-premise systems, and the setting is tested on these environments.

When replicating between online tenants (cloud systems) a rule of thumb is that the number must be a lot lower (i.e., 200-2000) depending on the record size for the table/tables that is replicated, but only real-life testing can determine the exact setting.

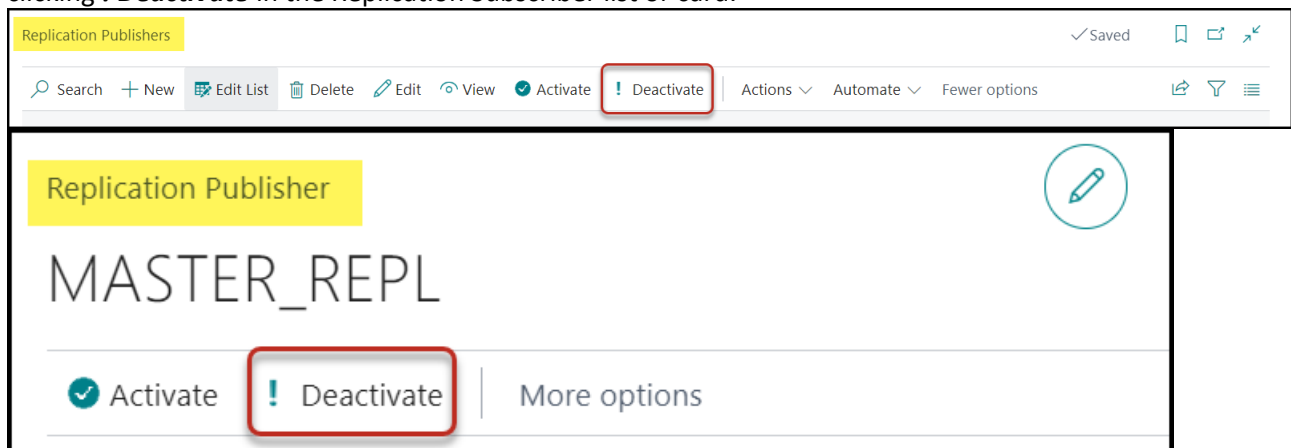
SETUP TABLES/FIELDS TO REPLICATE

You can setup the Tables and their Fields for a Replication Publisher **Code** in the **Publisher Company** that you want to Replicate to the **Subscriber Company**.

By clicking **Edit** in the **Replication Publishers** List, you can select the Tables and their Fields.

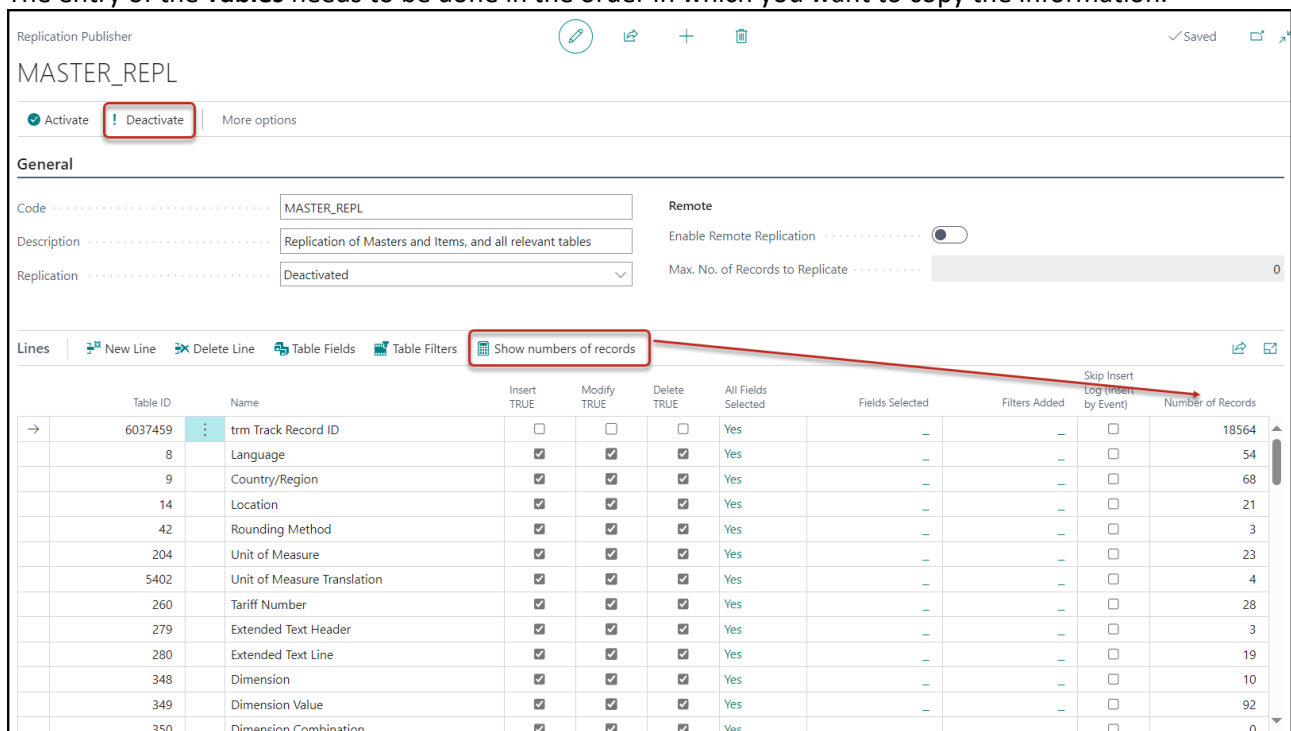


You can only change the content of a **Replication Publisher** if the Field **Replication** is set to **Deactivate**, by clicking **! Deactivate** in the Replication Subscriber list or card.



You can select any Table, but keep in mind, that you also need to select the Related Tables as well. I.e., for the Item Table (27), you also need the Unit of Measure (204) and the Vendor (23), etc.

The entry of the **Tables** needs to be done in the order in which you want to copy the information.



DESCRIPTION OF THE FIELDS OF THE LINES

TABLE ID

You can enter the **Table ID** of the Table you want to copy/update from the **Publisher Company** to the **Subscriber Company**.

You need to make sure, that you add the Tables in a logical order.

I.e.: if you want to copy the *6037103 Master* and the *27 Item*, the Master Table needs to come first.

Otherwise – when creating a new Master – the system detects that there is already a (Master) Item in the Item Table and will not be able to create the new Master.

NAME

The Name of the **Table ID** is shown.

INSERT TRUE

A checkmark in this field determines if the AL Code for **OnInsert ()** should be executed.

No checkmark means that the AL Code for **OnInsert ()** will not be executed.

MODIFY TRUE

A checkmark in this field determines if the AL Code for **OnModify()** should be executed.

No checkmark means that the AL Code for **OnModify()** will not be executed.

DELETE TRUE

A checkmark in this field determines if the AL Code for **OnDelete()** should be executed.

No checkmark means that the AL Code for **OnDelete()** will not be executed.

I.e., In Table **6037104 No. System** the AL Code for **OnInsert()**, **OnModify()** and **OnDelete()** will only be executed if the corresponding field **Insert TRUE**, **Modify TRUE** and **Delete TRUE** have been set to Yes.

```

src > src > AL NoSystem.Table.al
2 {
1015
1016     trigger OnDelete()
1017     begin
1018         Master.SetCurrentkey("No. System");
1019         Master.SetRange("No. System", Code);
1020         if not Master.IsEmpty then
1021             Error(TRIM003, Code, Master."No.");
1022
1023         CommentLineTRIMIT.SetRange("Table ID", 6037104);
1024         CommentLineTRIMIT.SetRange("Record ID", Code);
1025         if not CommentLineTRIMIT.IsEmpty then
1026             CommentLineTRIMIT.DeleteAll;
1027     end;
1028
1029     trigger OnInsert()
1030     begin
1031         "Creation Date" := Today;
1032         "Modified Date" := 0D;
1033     end;
1034
1035     trigger OnModify()
1036     begin
1037         NumberSequence;
1038         if Today <> "Creation Date" then
1039             "Modified Date" := Today;
1040     end;

```


ALL FIELDS SELECTED

This Field will automatically be set to *Yes*, if you did not select the Fields that needs to be copied/updated.

This Field will automatically be set to *No*, if you did select the Fields that needs to be copied/updated.

FIELDS SELECTED

You can select which Field Values needs to be copied/updated from a **Table ID** by clicking ***Table Fields***.

This will open the **Replication Publisher Fields** page.

This page can also be opened by clicking **All Fields Selected** or **Fields Selected**

Lines

New Line

Delete Line

Table Fields

Table Filters

Show numbers of records

	Table ID	Name	Insert TRUE	Modify TRUE	Delete TRUE	All Fields Selected	Fields Selected	Filters Added	Skip Insert Log (Insert by Event)	Number of Records
	ous/rus9	trm varDim type subset	☒	☒	☒	Yes	—	—	☐	2
	6037115	trm VarDim Combination	☒	☒	☒	Yes	—	—	☐	194
	6037117	trm VarDim Dimension Option	☒	☒	☒	Yes	—	—	☐	11
	6036528	trm Translation	☒	☒	☒	Yes	—	—	☐	4677
→	6037103	trm Master	☒	☒	☒	Yes	—	—	☐	143
	27	Item	☒	☒	☒	Yes	—	—	☐	4705
	6037027	trm Shipment Group	☒	☒	☒	Yes	—	—	☐	16
	6037035	trm Collection	☒	☒	☒	Yes	—	—	☐	14

The first time, you open the **Replication Publisher Fields** page for a Table the page will be empty.

You need to click ***Insert/Update Fields***, so all the Fields of the Table are added.

After this, you can determine if the update of the Field Values in the **Subscriber Company** is allowed or not by adding/removing checkmarks in **Update Allowed**.

By default, all the fields have **Update Allowed** set to Yes.

Edit - Replication Publisher Fields

Search

Edit List

Delete

Insert/Update Fields

Field ID ↑

Name

Update Allowed

(There is nothing to show in this view)

Edit - Replication Publisher Fields		Fields of 6037103 trm Master	
Search	Edit List	Delete	Insert/Update Fields
Field ID ↑	Name	Update Allowed	
→	1	⋮	No.
	101		Creation Date
	102		Modified Date
	104		Search Description
	200		Information Item
	201		Exclude from Transfer on Prod. Collecting Order
	202		Type
	302		Comment
	303		BOM
	304		Template Creating a Master
	305		Created via Template
	306		Template Sales Line
	401		Item Type

As soon as you have created these **Field ID's**, the information in the **Line** will also change:

Lines										
New Line Delete Line Table Fields Table Filters Show numbers of records										
Table ID	Name	Insert TRUE	Modify TRUE	Delete TRUE	All Fields Selected	Fields Selected	Filters Added	Skip Insert Log (Insert by Event)	Number of Records	
6037115	trm VarDim Combination	☒	☒	☒	Yes	—	—	☐	194	
6037117	trm VarDim Dimension Option	☒	☒	☒	Yes	—	—	☐	11	
6036528	trm Translation	☒	☒	☒	Yes	—	—	☐	4677	
→ 6037103	trm Master	☒	☒	☒	No	161	—	☐	143	
27	Item	☐	☒	☒	Yes	—	—	☐	4705	
6037027	trm Shipment Group	☒	☒	☒	Yes	—	—	☐	16	
6037035	trm Collection	☒	☒	☒	Yes	—	—	☐	14	
6037101	trm VarDim Master	☒	☒	☒	Yes	—	—	☐	311	

FILTERS ADDED

You can select which Records needs to be copied/updated from a **Table ID** by clicking **Table Filters**.

This will open the **Filters for Publisher Line** page.

This page can also be opened by clicking on the field **Filters Added**.

You can set Filters on any field of the **Table ID**.

Lines										
New Line Delete Line Table Fields Table Filters Show numbers of records										
Table ID	Name	Insert TRUE	Modify TRUE	Delete TRUE	All Fields Selected	Fields Selected	Filters Added	Skip Insert Log (Insert by Event)	Number of Records	
6037115	trm VarDim Combination	☒	☒	☒	Yes	—	—	☐	194	
6037117	trm VarDim Dimension Option	☒	☒	☒	Yes	—	—	☐	11	
6036528	trm Translation	☒	☒	☒	Yes	—	—	☐	4677	
→ 6037103	trm Master	☒	☒	☒	No	161	—	☐	143	
27	Item	☐	☒	☒	Yes	—	—	☐	4705	
6037027	trm Shipment Group	☒	☒	☒	Yes	—	—	☐	16	
6037035	trm Collection	☒	☒	☒	Yes	—	—	☐	14	
6037101	trm VarDim Master	☒	☒	☒	Yes	—	—	☐	311	

Filters for Publisher Line

Filter: trm Master

× Brand Code

FASHION

▼

+ Filter...

Filter totals by:

+ Filter...

OK

Cancel

And the field **Filters Added** will show you the number of Filters you have set.

Lines										
New Line Delete Line Table Fields Table Filters Show numbers of records										
Table ID	Name	Insert TRUE	Modify TRUE	Delete TRUE	All Fields Selected	Fields Selected	Filters Added	Skip Insert Log (Insert by Event)	Number of Records	
6037115	trm VarDim Combination	☒	☒	☒	Yes	—	—	☐	194	
6037117	trm VarDim Dimension Option	☒	☒	☒	Yes	—	—	☐	11	
6036528	trm Translation	☒	☒	☒	Yes	—	—	☐	4677	
→ 6037103	trm Master	☒	☒	☒	No	161	1	☐	143	
27	Item	☐	☒	☒	Yes	—	—	☐	4705	
6037027	trm Shipment Group	☒	☒	☒	Yes	—	—	☐	16	
6037035	trm Collection	☒	☒	☒	Yes	—	—	☐	14	

NOTE

After changing the **Fields Selected** or the **Filters Added**, make sure that the field **Replication** of the Replication Publisher is set to a value different from *Deactivate* again.

SKIP INSERT LOG (INSERT BY EVENT)

A checkmark in this field means that no **Replication Log** will be created automatically for this **Table ID**, but you can develop customization to do so in specific situations.

NUMBER OF RECORDS

This column will only be shown if you click **Show numbers of records**.

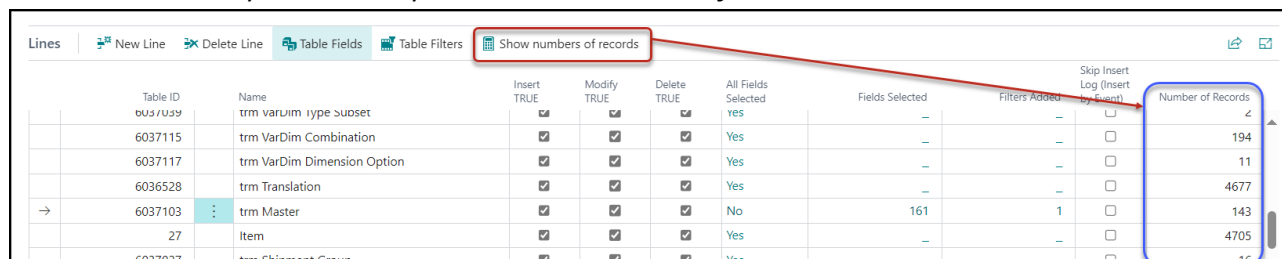
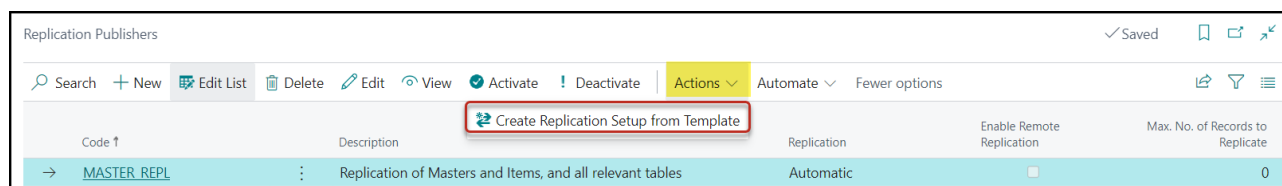


Table ID	Name	Insert TRUE	Modify TRUE	Delete TRUE	All Fields Selected	Fields Selected	Filters Added	Skip Insert Log (Insert by Event)	Number of Records
6037115	trm VarDim Combination	☒	☒	☒	Yes	–	–	☐	194
6037117	trm VarDim Dimension Option	☒	☒	☒	Yes	–	–	☐	11
6036528	trm Translation	☒	☒	☒	Yes	–	–	☐	4677
6037103	trm Master	☒	☒	☒	No	161	1	☐	143
27	Item	☒	☒	☒	Yes	–	–	☐	4705
6037027	trm Shipment Group	☒	☒	☒	Yes	–	–	☐	16

When closing the page, and opening the page, the column will disappear again, and you have to click **Show numbers of records** again to let the system determine the **Number of Records** for all the Tables in the Publisher.

This number will not change based on the **Filters Added**, it will always show the total number of records to give you an impression of the size of the table data that would be replicated.

ACTIONS – CREATE REPLICATION SETUP FROM TEMPLATE

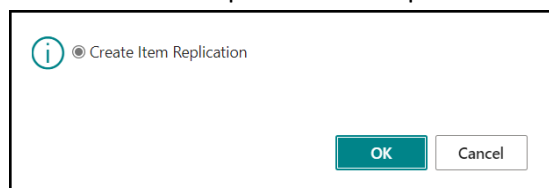


Code	Description	Replication	Enable Remote Replication	Max. No. of Records to Replicate
MASTER_REPL	Replication of Masters and Items, and all relevant tables	Automatic	☐	0

For copying data from Items/Masters, we have created a special Template that can be used.

If you click **Create Replication Setup from Template** in the list of Replication Publishers, you can choose for which Template you want to create a **Replication Publisher**.

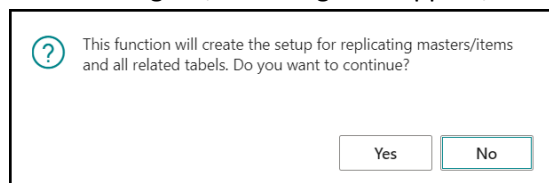
We created a Template for the replication of Items/Masters:



Create Item Replication

OK **Cancel**

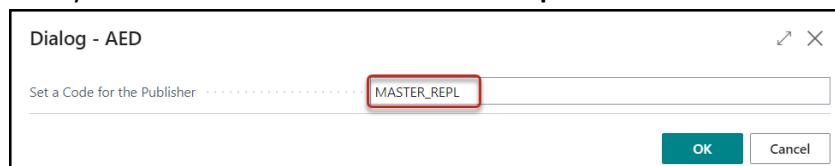
After clicking **OK**, a message will appear, which you need to confirm by clicking **Yes**.



This function will create the setup for replicating masters/items and all related tables. Do you want to continue?

Yes **No**

Now you can determine the **Code** for this **Replication Publisher**:



Dialog - AED

Set a Code for the Publisher: **MASTER_REPL**

OK **Cancel**

After clicking **OK**, it will show all the Tables in this **Replication Publisher MASTER_REPL**, and you can determine the **Tables** you want to replicate – by default, they are all chosen:

Edit - Lines - MASTER_REPL2 · 10000						
Choose	Table ID	Name	Filters Added	Skip Insert Log (Insert by Event)	Skip Error Handling	
→ ☒	6037459	trm Track Record ID	—	☐	☐	
☒	8	Language	—	☐	☐	
☒	9	Country/Region	—	☐	☐	
☒	14	Location	—	☐	☐	
☒	42	Rounding Method	—	☐	☐	
☒	204	Unit of Measure	—	☐	☐	
☒	5402	Unit of Measure Translation	—	☐	☐	
☒	260	Tariff Number	—	☐	☐	

The following Tables are in this Template:

Table ID	Name	Table ID	Name	Table ID	Name
6037459	trm Track Record ID	6037103	trm Master	5404	Item Unit of Measure
8	Language	27	Item	5777	Item Reference
9	Country/Region	6037027	trm Shipment Group	23	Vendor
14	Location	6037035	trm Collection	99	Item Vendor
42	Rounding Method	6037101	trm VarDim Master	5800	Item Charge
204	Unit of Measure	6037036	trm Delivery Period	6037025	trm Item Charge Calc Line
5402	Unit of Measure Translation	6037033	trm Matrix Limitation Setup	6037006	trm Ext Location Management
260	Tariff Number	6037037	trm Collection Master Relation	6037181	trm Picture Relation
279	Extended Text Header	6037034	trm Matrix Limit Master Relat	6037180	trm Picture
280	Extended Text Line	6037116	trm VarDim Positive/Negative	7012	Purchase Price
348	Dimension	6037119	trm VarDim Pos./Neg. Inactive	6036652	trm Dimension Purchase Price
349	Dimension Value	6037341	trm BOM Component Line	341	Item Discount Group
350	Dimension Combination	6037109	trm Matrix Master	7014	Purchase Line Discount
351	Dimension Value Combination	6037113	trm Matrix Item Line	6	Customer Price Group
5722	Item Category	6037120	trm Matrix Item Line Inactive	6036656	trm Price Group Parameters
6036682	trm Group Code	6037114	trm Matrix Cell	7002	Sales Price
6037000	trm Group Integer	6037118	trm Assortment	6036654	trm Dimension Sales Price
6037104	trm No. System	97	Comment Line	6036655	trm VarDim Sales Price
6037194	trm Status Code	6036533	trm Comment Line	7004	Sales Line Discount
6037003	trm Contribution Margin	6037250	trm Additional Info Header	6036657	trm Sales Line Discount Type
7500	Item Attribute	6037251	trm Additional Info Line	6036663	trm Sales Line Disc Comb Rate
7501	Item Attribute Value	6037187	trm Additional Comment Header	6037203	trm Search Table Header
7502	Item Attribute Translation	6037193	trm Additional Comment Line	6037204	trm Search Table Line
7503	Item Attr. Value Translation	6037189	trm Measurement Chart Version	6037205	trm Formula Header
6037100	trm VarDim Type	6037190	trm Measurement Chart Line	6037206	trm Formula Line
6037102	trm VarDim Variant Option	6037191	trm Measurement	6037200	trm Formula Constant
6037039	trm VarDim Type Subset	30	Item Translation	6037201	trm Formula Global Variable
6037115	trm VarDim Combination	6037107	trm VarDim Item Header	6037202	trm Formula VarDim Field Ref
6037117	trm VarDim Dimension Option	6037106	trm VarDim Item	6037212	trm Formula Dialog
6036528	trm Translation	7505	Item Attribute Value Mapping	352	Default Dimension
				354	Default Dimension Priority

NOTE

This Template will not include the Tables that might be necessary for using TRIMIT's Webshops and Portals.

After clicking **Close** the Replication Subscriber **Code** is created and by clicking **Edit**, you can still change the Tables, Records and Fields you want to copy (as long as field **Replication** is *Deactivated*).

Replication Publishers | Work Date: 6-9-2020

✓ Saved



🔍 Search

+ New

 Edit List

 Delete

 Edit

 View

 Activate

 Deactivate

 Open in Excel

Actions

Fewer options



Code ↑	Description	Replication	Enable Remote Replication	Max. No. of Records to Replicate
MASTER_REPL	Replication of Masters and Items, and all relevant tables	Automatic	☐	0
→ MASTER_REPL_2	Replication of Masters and Items, and all relevant tables	Deactivated	☐	0

Be aware that you need to **Activate** the **Code** before you can use it!!

Therefore, you can change the field **Replication**, or click **Activate**, which will give you 2 options:

i

☒ Automatic

☐ Manual

OK

Cancel

See [Replication](#) for the detailed description of the options.

SETUP REPLICATION SUBSCRIBER

After you have setup the **Replication Publisher Codes** in the **Publisher Company** (Head Office) from which you want to copy the data, you can now go to the **Subscriber Company** (Sales Office):

The (Database and) Company to which you want to copy the data or to update the data.

In the **Replication Subscriber**, which can be found via **Search Replication Subscriber**, you can now determine from which **Publisher Company** (Head Office) you want to copy/update the data based on the [Replication Publisher Code](#), into the current **Subscriber Company** (Sales Office).

Replication Subscriber							
Search + New Edit List Delete Replicate All Activate Deactivate Connection List Actions Related Automate Fewer options							
Connection Type	Related Company ↑	Connection Code ↑	Replication Publisher Code ↑	Replication	Last Replicated Log Entry	Last Replicated	Duration
→ Internal	CRONUS TRIMIT HQ		MASTER_REPL	Automatic	10820	8/28/2023 2:58 PM	6 seconds 255 milliseconds
External	CRONUS TRIMIT W1 Ltd.	CR	REPLICATE	Deactivated	0		
External	CRONUS TRIMITBC13 MASTER	CONNECT	MASTER_DATA	Deactivated	0		

NOTE

You are not able to change the content of an existing record unless you click **Deactivate**.

Only records with Field **Replication** set to **Deactivated** can be changed.

DESCRIPTION OF THE FIELDS

CONNECTION TYPE

You can choose between the following three options:

Internal	If you want to copy data from a company to another company in the same Database
External	If you want to copy data from a company to a company in another Database
Portal Synchronization	<i>This is an option we had in the past for using the Item Attributes as a Search Method on the TRIMIT Portals but is not applicable anymore.</i> <i>This has been replaced by the Tag Filter functionality.</i> <i>See White Paper – TRIMIT Tag Filters.</i>

RELATED COMPANY

In this Field, you need to select the Company from which you want to copy/update data.

If the **Connection Type** is *Internal* or *Portal Synchronization*, the lookup (**Alt+Arrow down**) will show all companies within the current database.

If the **Connection Type** is *External*, you first need to enter the **Connection Code**. After that, you can also use the lookup in the **Related Company** to select a Company from the other database based on the **Server Name** and **Service Name** of the **Connection Code**.

CONNECTION CODE

The **Connection Code** is only applicable for **Connection Type** *External*.

See [Connection Code](#) how to setup this Connection Code.

REPLICATION PUBLISHER CODE

In this Field, you need to select the **Replication Publisher Code** from the **Related Company** that you want to copy/update into the current **Subscriber Company**.

REPLICATION

This is the content of the Field **Replication** of the **Replication Publisher Code** from the **Related Company**. With the content of the Field **Replication**, you can determine how the copy should take place.

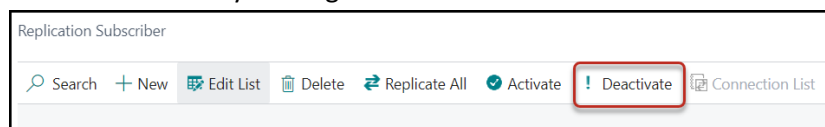
You can choose between the following three options:

Automatic	This means that you can set up a Job Queue in the Subscriber Company, that the Replication will run the Replication Publisher Codes that are also set in the Publisher Company to automatic. If this is required, it would make sense to have both Publisher and Subscriber set to automatic, as it otherwise would do a full replication each time if Publisher were set to <i>Manual</i>. With <i>automatic</i> it will also – after an initial replication – only replicate the differences since the last replication.
Manual	This means that the replication must be run manually when required. If the Publisher is set to <i>Automatic</i>, it will only replicate the differences since the last replication.
Deactivated	This means that it cannot be run.

You can only change the *Automatic* into *Deactivated*.

You can only change the *Manual* into *Deactivated*.

This can be done by clicking **Deactivate**.



LAST REPLICATED NO.

Last entry in the **Replication Log** in the **Publisher Company** that has been replicated.

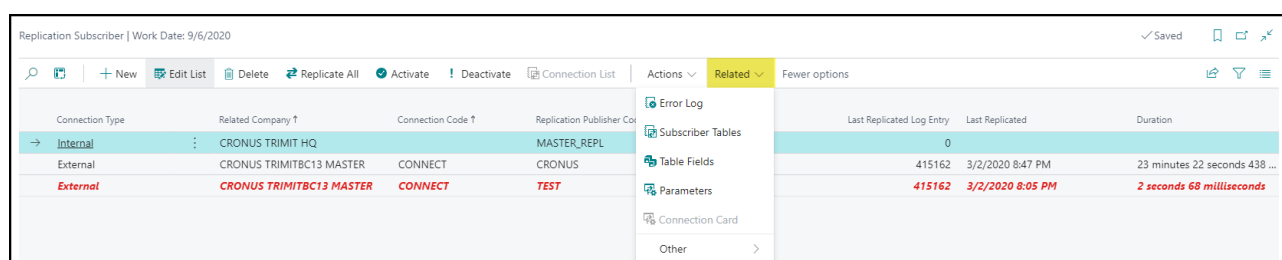
LAST REPLICATED

The Date and Time of the last execution of this **Replication Subscriber**.

DURATION

This field shows you the Time it took for the last executed Replication.

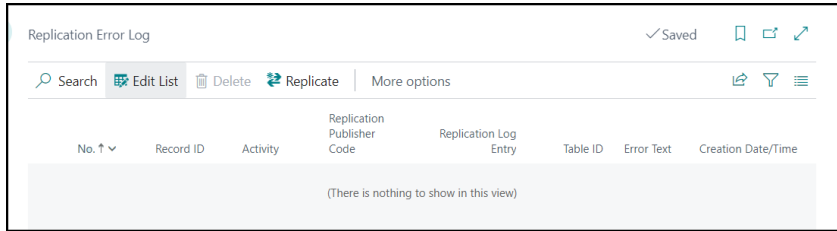
RELATED



Connection Type	Related Company †	Connection Code †	Replication Publisher Code	Last Replicated Log Entry	Last Replicated	Duration
Internal	CRONUS TRIMIT HQ		MASTER_REPL	0		
External	CRONUS TRIMITBC13 MASTER	CONNECT	CRONUS	415162	3/2/2020 8:47 PM	23 minutes 22 seconds 438 ...
External	CRONUS TRIMITBC13 MASTER	CONNECT	TEST	415162	3/2/2020 8:05 PM	2 seconds 68 milliseconds

ERROR LOG

This can show Errors that have been occurred during the Replication.



Replication Error Log

✓ Saved

Search Edit List Delete Replicate More options

No. ↑	Record ID	Activity	Replication Publisher Code	Replication Log Entry	Table ID	Error Text	Creation Date/Time
(There is nothing to show in this view)							

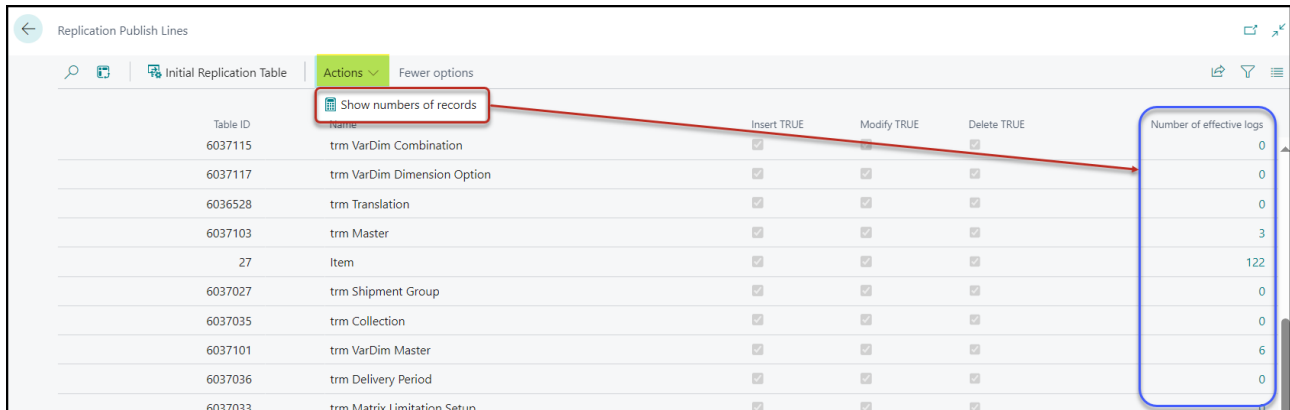
SUBSCRIBER TABLES

This will show the list of Tables of the **Replication Publisher Code** from the **Related Company** (the Publisher Company). You can however not change this in the **Subscriber Company**; therefore, you need to go to the **Publisher Company**.

By clicking **Actions, Show number of records** it will show the column **Number of effective logs**.

This will show the number of records in the Replication Log in the **Publisher Company** of a Table after the Initial Replication; the records that have been created in the **Publisher Company** but have not been replicated yet to the **Subscriber Company**.

I.e., if you created 3 new Masters in the **Publisher Company** the **Number of effective logs** would be 3 for **Table ID 6037103**, but also for other related Tables you will see the **Number of effective logs** <> 0 (zero).



Replication Publish Lines

Initial Replication Table Actions Fewer options

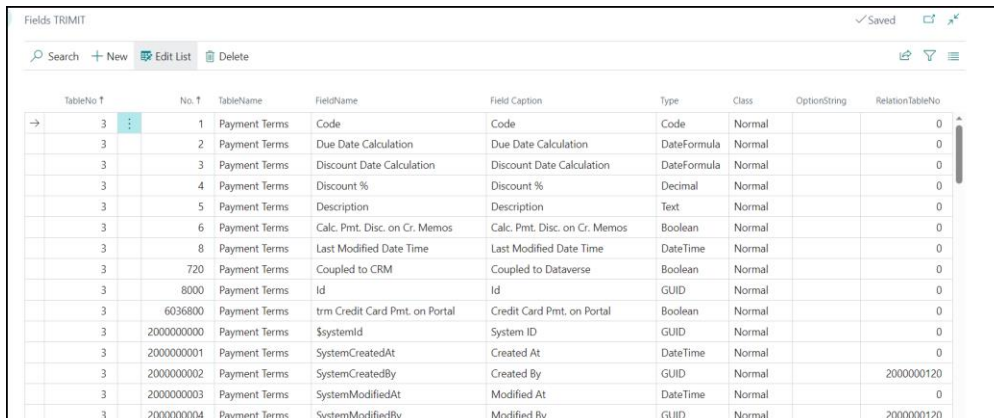
Show numbers of records

Table ID	Name	Insert TRUE	Modify TRUE	Delete TRUE	Number of effective logs
6037115	trm VarDim Combination	☒	☒	☒	0
6037117	trm VarDim Dimension Option	☒	☒	☒	0
6036528	trm Translation	☒	☒	☒	0
6037103	trm Master	☒	☒	☒	3
27	Item	☒	☒	☒	122
6037027	trm Shipment Group	☒	☒	☒	0
6037035	trm Collection	☒	☒	☒	0
6037101	trm VarDim Master	☒	☒	☒	6
6037036	trm Delivery Period	☒	☒	☒	0
6037033	trm Matrix Limitation Setup	☒	☒	☒	0

TABLE FIELDS

This will show the list of Fields of the Tables of the **Replication Publisher Code** from the **Related Company** (Publisher Company) based on the Fields that have been chosen.

You can however not change this in the **Subscriber Company**; therefore, you need to go to the **Publisher Company**.



Fields TRIMIT

✓ Saved

Search + New Edit List Delete

TableNo ↑	No. ↑	TableName	FieldName	Field Caption	Type	Class	OptionString	RelationTableNo
3	1	Payment Terms	Code	Code	Code	Normal		0
3	2	Payment Terms	Due Date Calculation	Due Date Calculation	DateFormula	Normal		0
3	3	Payment Terms	Discount Date Calculation	Discount Date Calculation	DateFormula	Normal		0
3	4	Payment Terms	Discount %	Discount %	Decimal	Normal		0
3	5	Payment Terms	Description	Description	Text	Normal		0
3	6	Payment Terms	Calc. Pmt. Disc. on Cr. Memos	Calc. Pmt. Disc. on Cr. Memos	Boolean	Normal		0
3	8	Payment Terms	Last Modified Date Time	Last Modified Date Time	DateTime	Normal		0
3	720	Payment Terms	Coupled to CRM	Coupled to Dataserve	Boolean	Normal		0
3	8000	Payment Terms	Id	Id	GUID	Normal		0
3	6036800	Payment Terms	trm Credit Card Pmt. on Portal	Credit Card Pmt. on Portal	Boolean	Normal		0
3	2000000000	Payment Terms	\$systemId	System ID	GUID	Normal		0
3	2000000001	Payment Terms	SystemCreatedAt	Created At	DateTime	Normal		0
3	2000000002	Payment Terms	SystemCreatedBy	Created By	GUID	Normal	2000000120	0
3	2000000003	Payment Terms	SystemModifiedAt	Modified At	DateTime	Normal		0
3	2000000004	Payment Terms	SystemModifiedBy	Modified By	GUID	Normal	2000000120	0

PARAMETERS

After you have setup a **Replication Subscriber**, you are able to set some **Parameters** to change the Data from the Publisher before it is imported in the Subscriber.

This is possible for *Internal* and *External* Replication Subscribers.

Make sure the **Replication Subscriber** is *Deactivated*, otherwise the **Replication Parameters** page will not open!!

For other replications of data, you might want to create your own customization in which you can change the content of the Fields that will be replicated, but this way you will have an example of how to set this up.

Replication Parameters - CRONUS TRIMIT HQ · MASTER_REPL

Manage
Page

General

Use Default Event Subscriber

Item

Replace Vendor No.
IC-HQ

Replace Create Related Order Instantly
No

Replace Replenishment Policy
No

Location Clear Whse. Param.

Replace Replenishment System
Purchase

DESCRIPTION OF THE FIELDS

USE DEFAULT EVENT SUBSCRIBER

You are able to choose if you want to use the **Default Event Subscriber**, it is no longer automatically used as in previous releases.

The default is *Yes*. But when upgrading; check if you want to set it to *Yes*.

NOTE

Make sure when creating a new Replication Subscriber, if you want to use the **Default Event Subscriber** functionality, that you open the **Replication Parameters** and set the field **Use Default Event Subscriber** to *Yes* (default value).

REPLACE VENDOR NO.

If the Item in the **Publisher Company** (Head Office) is bought from external Vendors, the same Item in the **Subscriber Company** (Sales Office) might simply be bought from the Head Office.

Therefore, you might want to replace the **Vendor No.** after replication by the **Vendor No.** of the Head Office.

REPLACE REPLENISHMENT POLICY

If the Item of the **Publisher Company** (Head Office) is bought or produced per Order, the same Item in the **Subscriber Company** (Sales Office) might simply be bought on Inventory.

Therefore, you might want to replace the **Replenishment Policy** after replication by *Inventory*.

REPLACE REPLENISHMENT SYSTEM

If the Item in the **Publisher Company** (Head Office) is produced, the same Item in the **Subscriber Company** (Sales Office) will simply be bought from the Head Office.

Therefore, you might want to change the **Replenishment System** from *Production* to *Purchase*.

If this Parameter is filled, the **Replenishment System** for the replicated Masters/Items will all be set to the content of **Replace Replenishment System**, and the field **Automatic Replenishment** will be set to *No*.

REPLACE CREATE RELATED ORDER INSTANTLY

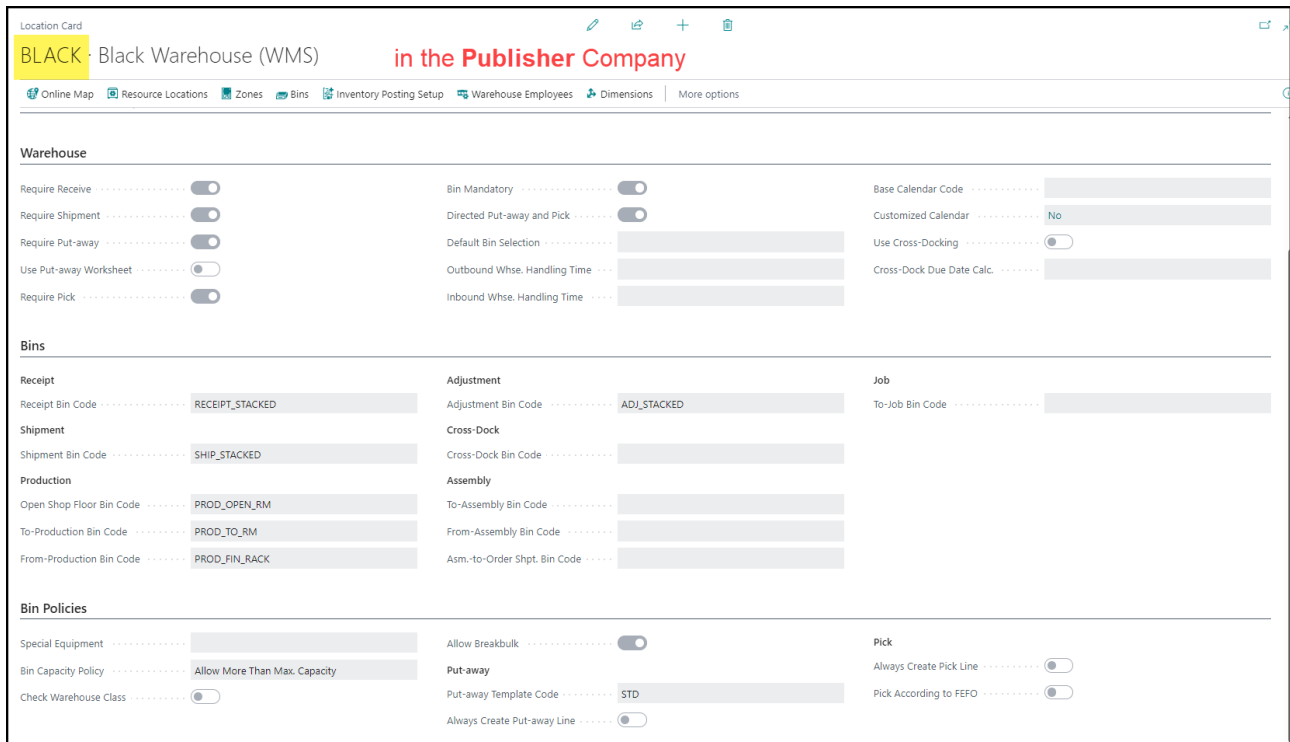
If the Item in the **Publisher Company** (Head Office) is bought/produced per Order, and a related order is created instantly, you might not want to do this in the **Subscriber Company** (Sales Office), so you can change this setting:



If you choose *No*, you need to be aware, that a Sales Line (in an Intercompany Structure), could immediately create an Intercompany Purchase Order.

LOCATION CLEAR WHSE. PARAMETERS

If you are copying the **Locations** from the **Publisher Company** (Head Office) to the **Subscriber Company** (Sales Office), you might not want to have all the fields regarding WMS filled with checkmarks or default Bin Codes – because the Logistics of the Sales Office might simply take place in the Head Office.



Location Card
BLACK - Black Warehouse (WMS) in the Publisher Company

Online Map | Resource Locations | Zones | Bins | Inventory Posting Setup | Warehouse Employees | Dimensions | More options

Warehouse

Require Receive	☐	Bin Mandatory	☐	Base Calendar Code	
Require Shipment	☐	Directed Put-away and Pick	☐	Customized Calendar	No
Require Put-away	☐	Default Bin Selection		Use Cross-Docking	☐
Use Put-away Worksheet	☐	Outbound Whse. Handling Time		Cross-Dock Due Date Calc.	
Require Pick	☐	Inbound Whse. Handling Time			

Bins

Receipt	Adjustment	Job
Receipt Bin Code	Adjustment Bin Code	To-Job Bin Code
SHIPMENT	Cross-Dock	
Shipment Bin Code	Cross-Dock Bin Code	
Production	Assembly	
Open Shop Floor Bin Code	To-Assembly Bin Code	
To-Production Bin Code	From-Assembly Bin Code	
From-Production Bin Code	Asm.-to-Order Shpt. Bin Code	

Bin Policies

Special Equipment	Allow Breakbulk	Pick
Bin Capacity Policy	Put-away	Always Create Pick Line
Check Warehouse Class	Put-away Template Code	Pick According to FEFO
	Always Create Put-away Line	

Location Card
BLACK : Black Warehouse (WMS)
in the Subscriber Company

Online Map
Resource Locations
Zones
Bins
Inventory Posting Setup
Warehouse Employees
Dimensions
More options

Warehouse

Require Receive
Require Shipment
Require Put-away
Use Put-away Worksheet
Require Pick

Bin Mandatory
Directed Put-away and Pick
Default Bin Selection
Outbound Whse. Handling Time
Inbound Whse. Handling Time

Base Calendar Code
Customized Calendar
Use Cross-Docking
Cross-Dock Due Date Calc.

Bins

Receipt
Receipt Bin Code
Shipment
Shipment Bin Code
Production
Open Shop Floor Bin Code
To-Production Bin Code
From-Production Bin Code

Adjustment
Adjustment Bin Code
Cross-Dock
Cross-Dock Bin Code
Assembly
To-Assembly Bin Code
From-Assembly Bin Code
Asm.-to-Order Shpt. Bin Code

Job
To-Job Bin Code

Bin Policies

Special Equipment
Bin Capacity Policy
Check Warehouse Class

Allow Breakbulk
Put-away
Put-away Template Code
Always Create Put-away Line

Pick
Always Create Pick Line
Pick According to FEFO

CONNECTION CARD

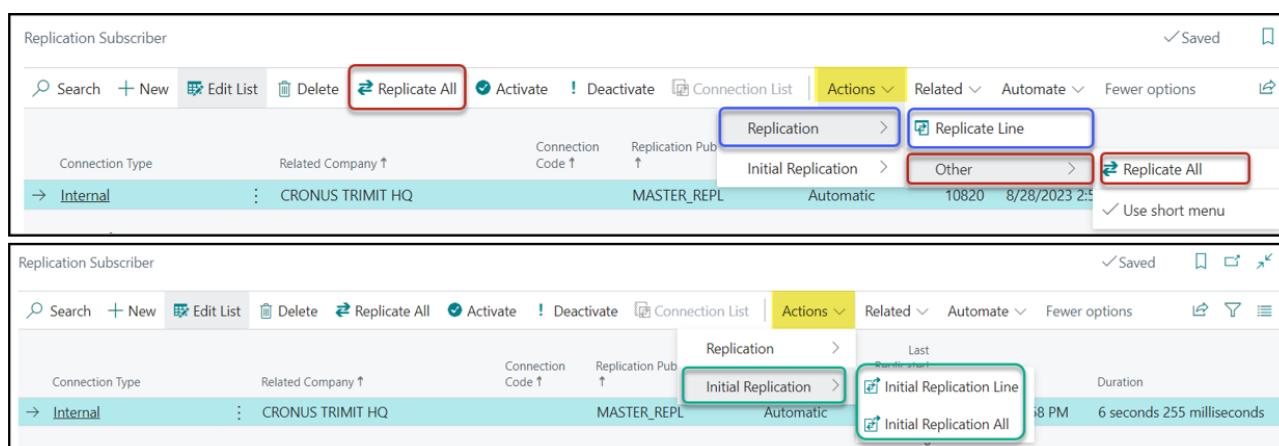
This will open the **Connection Card** of the **Connection Code**.

This action is only enabled if the **Connection Code** is filled.

PROCESS OF REPLICATING DATA

After you have setup the **Replication Publisher** and the **Tables/Fields to Replicate** in the **Publisher Company** and the **Replication Subscriber** and the **Parameters** in the **Subscriber Company**, you can execute the actual Replication via the **Actions** in the **Replication Subscriber** (or via the Job Queue).

ACTIONS

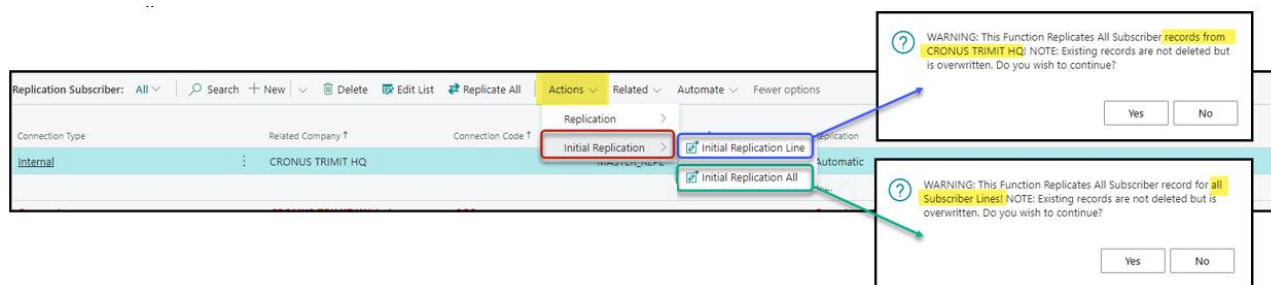


REPLICATION AND INITIAL REPLICATION

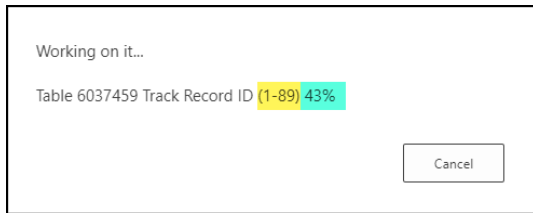
To execute the Replication, you need to click one of the four Actions:

Replicate Line	Replicate only all the changed/added/deleted Table Data of the Replication Publisher of the current Line.
Replicate All	Replicate all the changed/added/deleted Table Data of the Replication Publisher of all Lines.
Initial Replication Line	Replicate all records in the Tables of the Replication Publisher on the current Line. If records exist in the Subscriber Company , they are overwritten (they are not deleted first).
Initial Replication All	Replicate all records in the Tables of the Replication Publisher on all the Lines. If records exist in the Subscriber Company , they are overwritten (they are not deleted first).

When using **Initial Replication Line** or **Initial Replication All** you will get an extra message that needs to be confirmed:



After you have confirmed these messages with Yes, you will see how many tables needs to be copied, and the percentage within a specific table that already has been copied.



Depending on the number of Tables and Data in it, this can take several minutes.

NOTE

If you use **Replicate All**, the system will check if the **Initial Replication All** already was executed.

If not, the action **Replicate All** will be executed as **Initial Replication All**.

NOTE

The framework for Replication does **not** support fields of the type *MediaSet*.

In the Item Replication Framework, this is handled using a Publisher, and Subscriber (code), but in all other scenario's/tables it has to be a customized AL code to handle this.

CONNECTION CODE

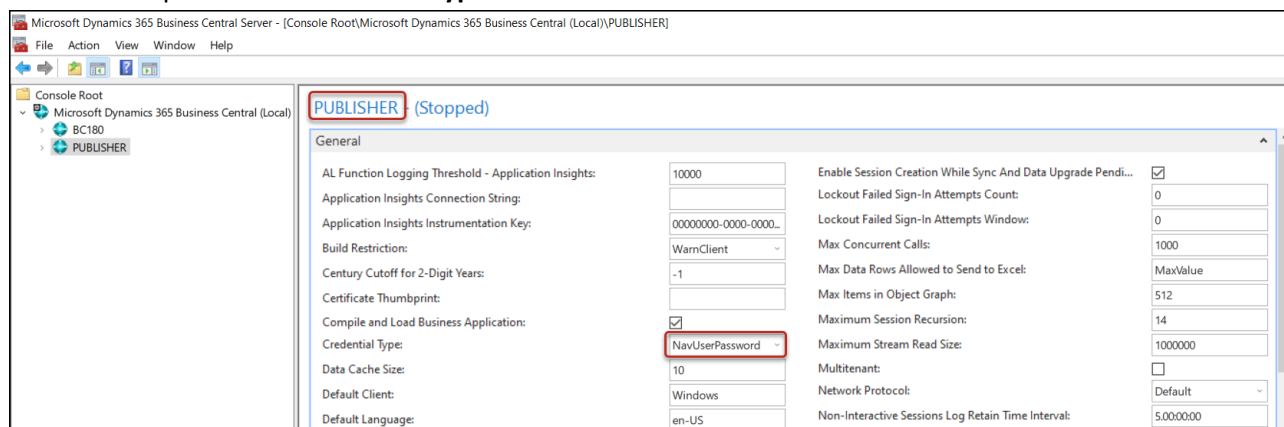
Before you can create a **Connection Code**, you need to make sure that your settings of the **Publisher Database** are set right.

EXTERNAL CONNECTION FOR PUBLISHING ON-PREMISE DATABASE/COMPANY

These setups are applicable if you want to Replicate Data from an on-premise **Publisher Database** (Head Office) to an on-premise **Subscriber Database** or a cloud **Subscriber Database** (Sales Offices).

EXTRA INSTANCE FOR YOUR ON-PREMISE DATABASE

Create a special **Instance** via **Business Central Administration** (i.e., PUBLISHER) and in the properties of this Instance the parameter **Credential Type** needs to be set to *NavUserPassword*.



Microsoft Dynamics 365 Business Central Server - [Console Root\Microsoft Dynamics 365 Business Central (Local)\PUBLISHER]

File Action View Window Help

Console Root

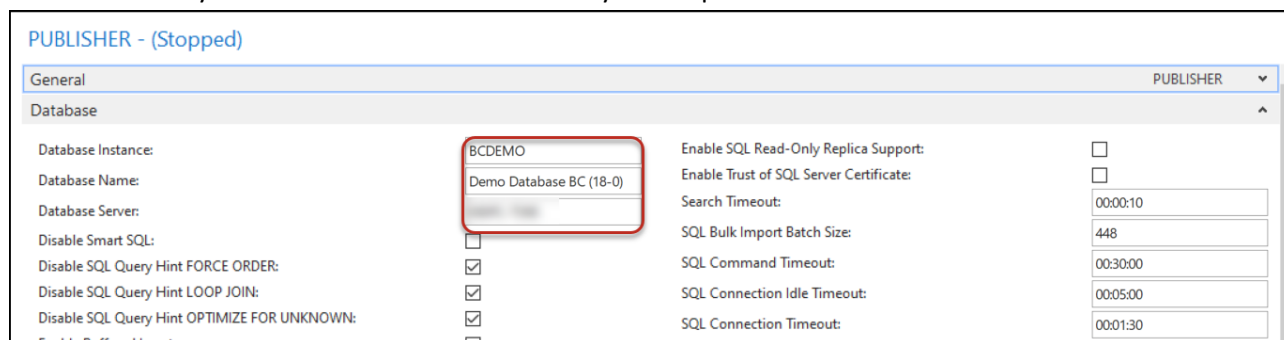
- Microsoft Dynamics 365 Business Central (Local)
 - BC180
 - PUBLISHER

PUBLISHER - (Stopped)

General

AL Function Logging Threshold - Application Insights:	10000	Enable Session Creation While Sync And Data Upgrade Pend...	☒
Application Insights Connection String:		Lockout Failed Sign-In Attempts Count:	0
Application Insights Instrumentation Key:	00000000-0000-0000...	Lockout Failed Sign-In Attempts Window:	0
Build Restriction:	WarnClient	Max Concurrent Calls:	1000
Century Cutoff for 2-Digit Years:	-1	Max Data Rows Allowed to Send to Excel:	MaxValue
Certificate Thumbprint:		Max Items in Object Graph:	512
Compile and Load Business Application:	☒	Maximum Session Recursion:	14
Credential Type:	NavUserPassword	Maximum Stream Read Size:	1000000
Data Cache Size:	10	Multitenant:	☐
Default Client:	Windows	Network Protocol:	Default
Default Language:	en-US	Non-Interactive Sessions Log Retain Time Interval:	5.00:00:00

Make sure that you have the same connection to your on-premise **Publisher Database**. I.e.:



PUBLISHER - (Stopped)

General

Database

Database Instance:	BCDEMO	Enable SQL Read-Only Replica Support:	☐
Database Name:	Demo Database BC (18-0)	Enable Trust of SQL Server Certificate:	☐
Database Server:		Search Timeout:	00:00:10
Disable Smart SQL:	☐	SQL Bulk Import Batch Size:	448
Disable SQL Query Hint FORCE ORDER:	☒	SQL Command Timeout:	00:30:00
Disable SQL Query Hint LOOP JOIN:	☒	SQL Connection Idle Timeout:	00:05:00
Disable SQL Query Hint OPTIMIZE FOR UNKNOWN:	☒	SQL Connection Timeout:	00:01:30
Enable Buffered Inserts:	☒		

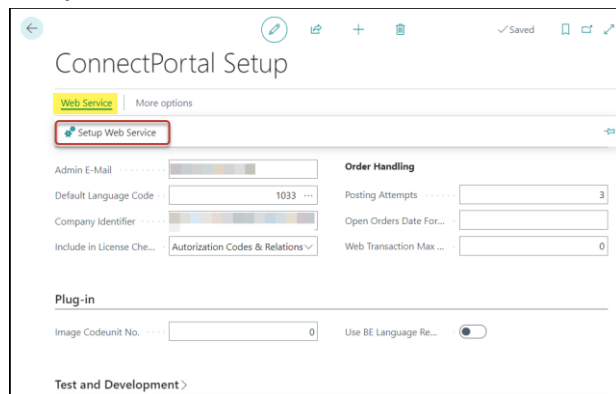
In this **Publisher Database**, you also need to create a special user/password that will be used specifically for the replication.

I.e.: **User NAS with Password BC24repl#\$**

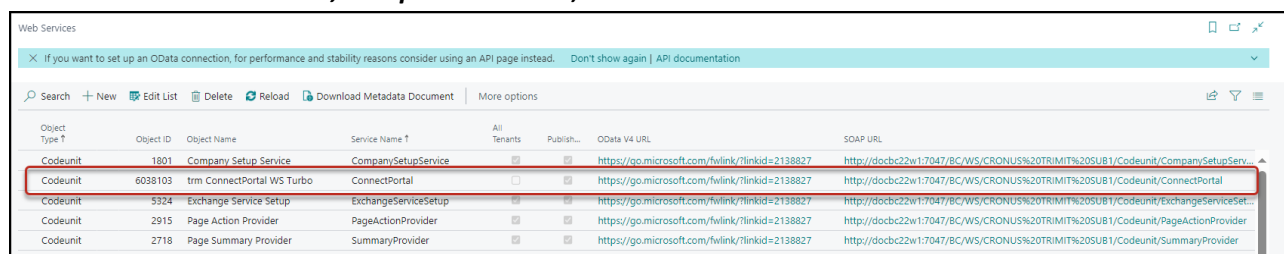
Be careful in assigning **User Rights SUPER** to this special user.

WEB SERVICE IN PUBLISHER DATABASE/COMPANY

You also need to create a **Web Service** in the **Publisher Database** (of the Head Office), which can be found by clicking **Search Web Service**. However, this Web Service needs to be created via the **ConnectPortal Setup**.



Via the Action **Web Service, Setup Web Service**, the fields of the Web Service will be filled.



Object Type T	Object ID	Object Name	Service Name T	All Tenants	Publish...	OData V4 URL	SOAP URL
Codeunit	1801	Company Setup Service	CompanySetupService			https://go.microsoft.com/fwlink/?linkid=2138827	http://docbc22w1:7047/BC/WS/CRONUS%20TRIMIT%20SUB1/Codeunit/CompanySetupServ...
Codeunit	6038103	trm ConnectPortal WS Turbo	ConnectPortal			https://go.microsoft.com/fwlink/?linkid=2138827	http://docbc22w1:7047/BC/WS/CRONUS%20TRIMIT%20SUB1/Codeunit/ConnectPortal
Codeunit	5324	Exchange Service Setup	ExchangeServiceSetup			https://go.microsoft.com/fwlink/?linkid=2138827	http://docbc22w1:7047/BC/WS/CRONUS%20TRIMIT%20SUB1/Codeunit/ExchangeServiceSet...
Codeunit	2915	Page Action Provider	PageActionProvider			https://go.microsoft.com/fwlink/?linkid=2138827	http://docbc22w1:7047/BC/WS/CRONUS%20TRIMIT%20SUB1/Codeunit/PageActionProvider
Codeunit	2718	Page Summary Provider	SummaryProvider			https://go.microsoft.com/fwlink/?linkid=2138827	http://docbc22w1:7047/BC/WS/CRONUS%20TRIMIT%20SUB1/Codeunit/SummaryProvider

OBJECT TYPE

Will be filled with: *Codeunit*.

OBJECT ID

Will be filled with: *6038103*.

OBJECT NAME

Will be filled automatically based on the **Object ID**.

SERVICE NAME

Will be filled with a Name for this Web Service, *ConnectPortal*.

PUBLISHED

Will be set to *Yes*.

ODATA VIA URL

This will be filled automatically based on the **Object Type** and the **Object ID**. It specifies the URL that is generated for the Web Service.

SOAP URL

This will be automatically filled based on your **Server Name**, **Object Type** and **Service Name**

NOTE

For the TRIMIT Portals you also need to have this **Web Service** which needs to be created the same way via the **ConnectPortal Setup**. This Web Service will however also be used for the *External Replications*.

CONNECTION CODE IN SUBSCRIBER DATABASE/COMPANY

Now you can complete the **Replication Subscriber** in the **Subscriber Database** by creating a new **Connection Code**.

Therefore, click **Search Replication Subscriber**, and make sure the Line is *Deactivated*.

Replication Subscriber: All Search + New Delete Edit List Replicate All Activate Deactivate Connection List Actions Related ...							
Connection Type	Related Company ↑	Connection Code ↑	Replication Publisher Code ↑	Replication	Last Replicated Log Entry	Last Replicated	Duration
Internal	CRONUS TRIMIT HQ		MASTER_REPL	Automatic	10820	8/28/2023 2:58 PM	6 seconds 255 milliseconds
External	CRONUS TRIMIT W1 Ltd.	CR	REPLICATE	Deactivated	0		
External	CRONUS TRIMITBC13 MASTER	CONNECT	MASTER_DATA	Deactivated	0		

See [Replication Subscriber](#) for a Description of the fields.

You can create a new **Connection Setup** via **Search Connection Setup** or via the **Replication Subscriber** by clicking **Alt+Arrow Down** in the field **Connection Code**:

Connection Setup Card






✓ Saved




CONNECT

 Ping the Connection

 Get Version
 More options

General

Code

CONNECT

User Id

Type

On-premise Replication

Password

Authentication Type

Basic

Use OData Web Service

On-premise Replication

Server Name

Service Port

7547

Service Name

PUBLISHER

Timeout

60000

Company Name

CRONUS TRIMIT

Batch Size

10000

CODE

Name for this Connection Code

TYPE

If the **Publisher** database is an on-premise database: *On-premise Replication*.

AUTHENTICATION TYPE

This field will automatically set to *Basic* in case **Type** is *On-premise Replication*.

USER ID

User ID you created specifically for Replication as mentioned in [Instance Setup](#).

PASSWORD

Password you created specifically for Replication as mentioned in [Instance Setup](#).

USE ODATA WEB SERVICE

This field is not shown by default, but you can add it via **Personalize**.

You can determine – especially for an *External* Replication Subscriber – if you want to **Use OData Web Service**.

NOTE

<https://learn.microsoft.com/en-us/dynamics365/business-central/dev-itpro/webservices/odata-web-services>

The Open Data Protocol (OData) is a web protocol that is designed for querying tabular data and provides you with an alternative to SOAP-based web services. OData builds on web technologies such as HTTP and JavaScript Object Notation (JSON) to provide access to information from different applications, services, and stores. OData uses URIs for resource identification and commits to an HTTP-based, uniform interface for interacting with resources. This commitment to core Web principles allows for OData to enable a new level of data integration and interoperability across a broad range of clients, servers, services, and tools.

You can use OData web services to show Business Central data, and you can update data in a Business Central database using OData web services.

SERVER NAME

Name of the Server of the Replication Publisher Database

SERVICE NAME

Name of the Instance for the Replication Publisher Database

COMPANY NAME

You need to select a Company.

The lookup in this field will show you all the Companies in the Publisher Database based on the **Server Name** and **Service Name**.

This does not have to be the same as the **Related Company** in the Replication Subscriber.

NOTE

The **Company Name** is needed to test the Connection Setup while clicking the **Ping the Connection** Action, because it is still part of the Web Service URL.

But you can create several Replication Subscribers to several **Related Companies** in the same Database, which make use of the same **Connection Code**.

SERVICE PORT

SOAP Services Port that you used in the Instance for the Replication Publisher

TIMEOUT

No. of seconds for Timeout

BATCH SIZE

You can reduce the quantity of **Replication Log Entries** that are processed in each Replication cycle.

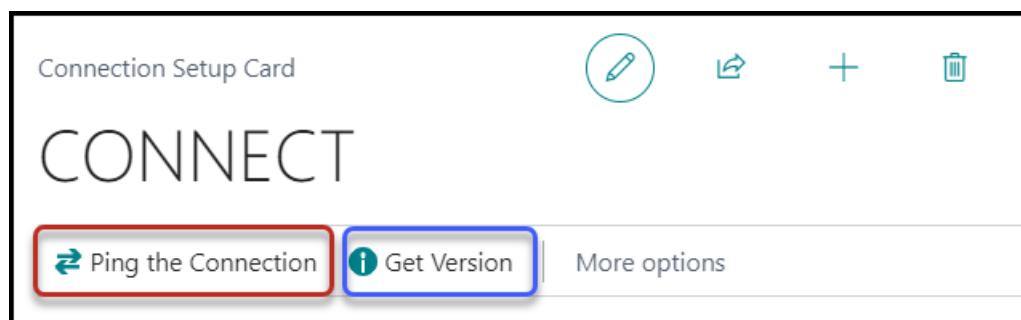
The Replication will then run in a loop until all changes in the Replication Log Entries are processed.

The field **Batch Size** in the page of the **Connection Setup Card** is actually

Field 20 **Maximum Size** in Table **6036517 trm Connection Setup**.

There is no default for this Field, but you could set it to **10000**.

ACTIONS IN THE CONNECTION SETUP



With the action ***Ping the Connection***, you can test if the fields (**Server Name**, **Service Name** and **Company Name**) are filled right.

With the action ***Get Version***, you can get the version (build) of this Server Name/Service Name. This will make it easier to determine if the version (build) of this **Connection Setup** (Publisher) and the database in which you want to copy data to (Subscriber) are the same, because they need to be the same. This will only work if there is a working connection, so the **Ping the Connection** does work.

EXTERNAL CONNECTION FOR PUBLISHING CLOUD DATABASE/COMPANY

These setups are applicable if you want to Replicate Data from a cloud **Publisher Database** (Head Office) to a cloud **Subscriber Database** (Sales Offices) – although in theory it could also be an on-premise **Subscriber Database** (Sales Office).

AZURE ACTIVE DIRECTORY APPLICATION

In the **Publisher Database** (Head Office), you need to setup an **Azure Active Directory Application**, which can be found via **Search Azure**.

You can read more about this in the [White Paper - TRIMIT OAuth Authentication in Connect Setup 23.1](#)

CONNECTION CODE IN SUBSCRIBER DATABASE/COMPANY

Now you can complete the **Replication Subscriber** in the **Subscriber Database** by creating a new **Connection Code**. Therefore, click **Search Replication Subscriber**, and make sure the Line is **Deactivated**.

Replication Subscriber Work Date: 9/6/2020								
✓ Saved Actions Related Fewer options								
Connection Type	Related Company	Connection Code	Replication Publisher Code	Replication	Last Replicated Log Entry	Last Replicated	Duration	
Internal	CRONUS TRIMIT HQ		MASTER_REPL	Automatic	91	7/11/2024 1:22 PM	3 minutes 43 second...	
External	CRONUS TRIMITBC13 MA...	CONNECT	CRONUS	Automatic	415162	3/2/2020 8:47 PM	23 minutes 22 secon...	
→ External	CRONUS TRIMITBC13 M...	CONNECT	TEST	Deactivated	415162	3/2/2020 8:05 PM	2 seconds 68 millis...	

See [Replication Subscriber](#) for a Description of the fields.

You can create a new **Connection Setup** via **Search Connection Setup** or via the **Replication Subscriber** by clicking **Alt+Arrow Down** in the field **Connection Code**:

Connection Setup Card






✓ Saved



CR

 Ping the Connection
 Get Version
More options

General

Code CR
User Id
Type Cloud Replication
Authentication Type OAuth 2.0 Service to Service
Password
Use OData Web Service ☐

Cloud Replication

Tenant
Timeout 60000
Environment
Batch Size 10000
Company Name CRONUS TRIMIT W1 Ltd.

CODE

Name for this Connection Code

TYPE

If the Publisher database is a cloud database: *Cloud Replication*.

AUTHENTICATION TYPE

For **Type Cloud Replication** – the default is *OAuth 2.0 Service to Service*.

You can however choose between the following two options:

Basic	Basic Authentication used for Replication to an on-premise environment
OAuth 2.0 Service to Service	OAuth Authentication used for Replication to a cloud environment

Fill the rest of the fields in the **Connection Setup** with the correct information of the other tenant (the Publisher Database), which participates in the remote replication.

You need to enter your new **Client Id** and **Client Secret** in the fields **User Id** and **Password**.

This Connection will then use an **Azure Active Directory Application** registration to login on the other tenant where the Data is copied from.

ACTIONS IN THE CONNECTION SETUP

Connection Setup Card






CONNECT

 Ping the Connection
 Get Version
More options

With the action ***Ping the Connection***, you can test if the fields (**Server Name**, **Service Name** and **Company Name**) are filled right.

With the action ***Get Version***, you can get the version (build) of this Server Name/Service Name. This will make it easier to determine if the version (build) of this **Connection Setup** (Publisher) and the database in which you want to copy data to (Subscriber) are the same, because they need to be the same. This will only work if there is a working connection, so the **Ping the Connection** does work.

REPLICATION LOG

Any change in the **Publisher Company** after an **Initial Replication** has been executed in the **Subscriber Company** can be saved in the **Replication Log** of the **Publisher Companies**.

This can be found via **Search Replication Log** in the **Publisher Company** (Head Office).

I.e., if you have created a **Replication Publisher Code** for copying Master data and have executed the Initial Replication in the Subscriber Company, and have changed data of a Master, the **Replication Log** will show you what has happened after the Initial Replication.

Replication Log							✓ Saved	🔖	🔗	✎
🔍 Search 🗑️ Delete Replicated Log Records More options							🔗 🔍 ☰			
No. ↑	Record ID	Activity	Table ID	User ID	Creation Date/Time					
85		Initial	6037206	ADMIN	7/13/2023 3:17 PM					
86		Initial	6037200	ADMIN	7/13/2023 3:17 PM					
87		Initial	6037201	ADMIN	7/13/2023 3:17 PM					
88		Initial	6037202	ADMIN	7/13/2023 3:17 PM					
89		Initial	6037212	ADMIN	7/13/2023 3:17 PM					
90	:	Initial	352	ADMIN	7/13/2023 3:17 PM					
91		Initial	354	ADMIN	7/13/2023 3:17 PM					
92	trm VarDim Item: Item,520000001,0,None,"",Dimension 1,"",,"SOFA_FRAME	Modify	6037106	ADMIN	7/18/2023 9:01 AM					
93	trm VarDim Item: Item,520000001,0,None,"",Dimension 1,"",,"SOFA_FRAME	Modify	6037106	ADMIN	7/18/2023 9:02 AM					
94	trm VarDim Item: Item,520000001,0,None,"",Dimension 1,"",,"SOFA_FRAME	Modify	6037106	ADMIN	7/18/2023 9:02 AM					
95	trm VarDim Item: Item,520000001,0,None,"",Dimension 1,"",,"SOFA_MAT	Modify	6037106	ADMIN	7/18/2023 9:03 AM					
96	trm VarDim Item: Item,520000001,0,None,"",Dimension 1,"",,"SOFA_MAT	Modify	6037106	ADMIN	7/18/2023 9:03 AM					
97	trm VarDim Item: Item,520000001,0,None,"",Dimension 1,"",,"SOFA_MAT	Modify	6037106	ADMIN	7/18/2023 9:03 AM					
98	trm VarDim Item: Item,520000001,0,None,"",Dimension 1,"",,"SOFA_COL	Modify	6037106	ADMIN	7/18/2023 9:03 AM					
99	trm VarDim Item: Item,520000001,0,None,"",Dimension 1,"",,"SOFA_COL	Modify	6037106	ADMIN	7/18/2023 9:03 AM					
100	trm VarDim Item: Item,520000001,0,None,"",Dimension 1,"",,"SOFA_COL	Modify	6037106	ADMIN	7/18/2023 9:03 AM					
101	trm VarDim Item: Item,520000001,0,None,"",Dimension 1,"",,"SOFA_PAT	Modify	6037106	ADMIN	7/18/2023 9:03 AM					
102	trm VarDim Item: Item,520000001,0,None,"",Dimension 1,"",,"SOFA_PAT	Modify	6037106	ADMIN	7/18/2023 9:03 AM					

You can delete records by clicking **Delete Replicated Log Records** in the ribbon **Home**.

Records will however only be deleted after they have been replicated in the **Subscriber Company**.

In case errors might occur when you Replicate Data, you can find those errors via **Search Replication Error** in the **Subscriber Company** as mentioned earlier in [Error Log](#).

Replication Error Log

✓ Saved

Search

Edit List

Delete

Replicate

More options

No. ↑	Record ID	Activity	Replication Publisher Code	Replication Log Entry	Table ID	Error Text	Creation Date/Time
There is nothing to show in this view							

JOB QUEUE

If the Field **Replication** in the **Replication Subscriber** (Sales Office) is set to *Automatic*, you can create your own batch job for the Replication in the **Job Queue** in the **Subscriber Database/Company**. You can find it via **Search Job Queue Entries**.

Your **Job Queue Entry** could look as follows:

Job Queue Entry Card | Work Date: 6-9-2020

+

✓ Saved

Codeunit · 6036532 · trm Replication Handling

Process

Reports

More options

General Show less

Object Type to Run	Codeunit	Maximum No. of Attempts to Run	0
Object ID to Run	6036532	Rerun Delay (sec)	0
Object Caption to Run	trm Replication Handling	Last Ready State	20-7-2021 13:07
Description	trm Replication Handling	Earliest Start Date/Time	
Parameter String		Expiration Date/Time	
Job Queue Category Code		Job Timeout	12 hours
User ID	KBI@TRIMIT.COM	Status	On Hold

Recurrence

Recurring Job		Next Run Date Formula	
Run on Mondays		Starting Time	18:00:00
Run on Tuesdays		Ending Time	
Run on Wednesdays		No. of Minutes between Runs	1440
Run on Thursdays		Inactivity Timeout Period	5
Run on Fridays			
Run on Saturdays			
Run on Sundays			

CUSTOMIZATION

If you want to use extra AL Code during the replication process, you can use the Business Event Publisher Functions available in the Codeunit **6036532 trm Replication Handling**.

I.e., if you use the Replication functionality in an Intercompany setup, you want to change the **Vendor No.** of the Masters/Items after the Master has been copied from the **Publisher Company** (Head Office) (with an external Vendor No.) to the Sales Office (with Vendor "Head Office").

You could also look at Codeunit **6036535 trm Repl Item Structure Events** for examples, because in this Codeunit we take the content of the **Parameters** to change Data in the Subscriber after copying the Data from the Publisher.

BUSINESS EVENT PUBLISHER FUNCTIONS

In the Codeunit **6036532 trm Replication Handling**, there are Events available that can be used if you want to add your own AL Code during the Replication Process:

```
[BusinessEvent(false)]
local procedure Pf_OnAfterGetSubscriberRecord
(var publisherRecRef_par: RecordRef;
var subscriberRecRef_par: RecordRef;
var replicationSubscriber_par: Record "trm Replication Subscriber";
var stop_par: Boolean)
begin
end;
```

```
[BusinessEvent(false)]
local procedure Pf_OnAfterCopySubscriberRecord1
(var publisherRecRef_par: RecordRef;
var subscriberRecRef_par: RecordRef;
var subscriberRecRefBefore_par: RecordRef;
var replicationSubscriber_par: Record "trm Replication Subscriber";
var found_par: Boolean;
var stop_par: Boolean)
begin
end;
```

```
[BusinessEvent(false)]
local procedure Pf_OnAfterCopySubscriberRecord2
(var publisherRecRef_par : RecordRef;
var subscriberRecRef_par : RecordRef;
var subscriberRecRefBefore_par : RecordRef;
var replicationSubscriber_par : Record "trm Replication Subscriber";
var found_par : Boolean;
var stop_par : Boolean)
begin
end;
```

[BusinessEvent(false)]

local procedure Pf_OnAfterInsertModifySubscriberRecord

```
(var publisherRecRef_par : RecordRef;  
var subscriberRecRef_par : RecordRef;  
var subscriberRecRefBefore_par : RecordRef;  
var replicationSubscriber_par : Record "trm Replication Subscriber";  
var found_par : Boolean)  
begin  
end;
```

[BusinessEvent(false)]

local procedure Pf_OnbeforeDeleteSubscriberRecord

```
(var subscriberRecRef_par : RecordRef;  
var replicationSubscriber_par : Record "trm Replication Subscriber";  
var stop_par : Boolean)  
begin  
end;
```

[BusinessEvent(false)]

local procedure Pf_OnAfterDeleteSubscriberRecord

```
(var subscriberRecRefBefore_par : RecordRef;  
var replicationSubscriber_par : Record "trm Replication Subscriber")  
begin  
end;
```

[BusinessEvent(false)]

local procedure Pf_PreTableReplicate

```
(var replicationSubscriber_par: Record "trm Replication Subscriber";  
var replicationPublisherLine_par: Record "trm Replication Publish Lines"; var  
stop_par: Boolean)  
begin  
end;
```

[BusinessEvent(false)]

local procedure Pf_PostTableReplicate

```
(var replicationSubscriber_par: Record "trm Replication Subscriber";  
var replicationPublisherLine_par: Record "trm Replication Publish Lines")  
begin  
end;
```

[BusinessEvent(false)]

local procedure Pf_PreReplicate

```
(var replicationSubscriber_par: Record "trm Replication Subscriber")  
begin  
end;
```

[BusinessEvent(false)]

local procedure Pf_PostReplicate

```
(var replicationSubscriber_par: Record "trm Replication Subscriber")  
begin  
end;
```