

OPEN ENTITY TEMPLATE STRUCTURE

To create the required functionality, we need to plan a data structure. Almost all the functionality that can be developed will rely in one way or another on the Base Templates.

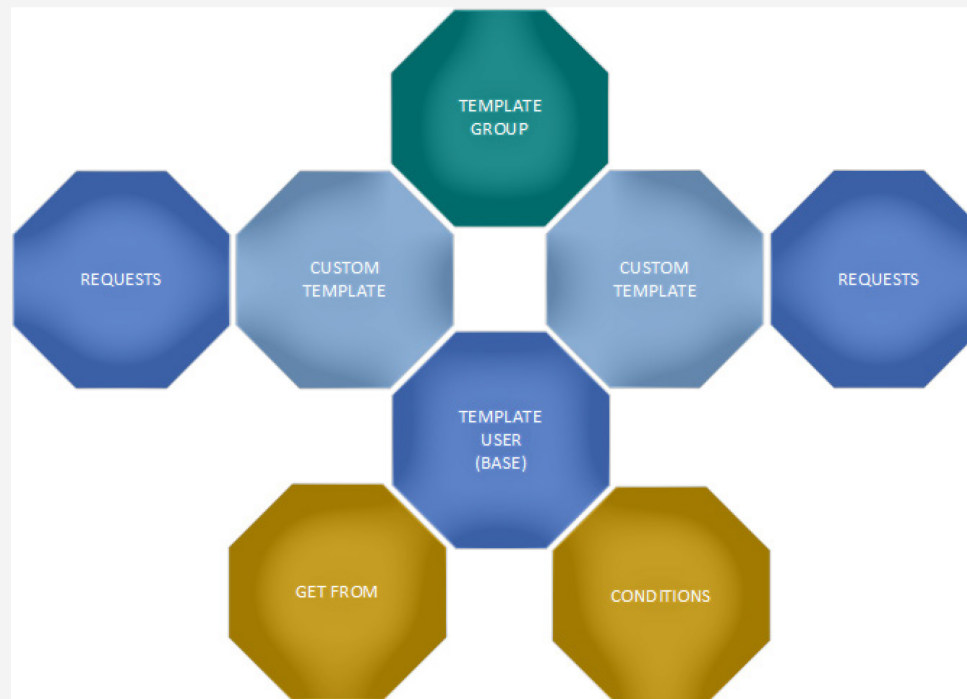
Custom Templates are tailored customizations for users or groups of users of the Base Templates, where configurable fields overlap those of the base template. This way, we can create custom templates for users or user groups based on the same base template.

A Custom Template will only appear on the main Open Entity page under the Main Utility section or in one of its Folders when it is created for a specific User or Group.

Finally, Template Groups form a sequential list or group of Custom Templates that can be executed directly by the Manager, by Project Queues (weekly calendar), or by scheduled change notifications (webhooks).

There are also two additional types of templates that provide extra functionality to the Base Templates, namely "Get from" Templates and "Conditions." The Request template allows a user to request information from another company or Business Central environment by invoking an external Base Template. These templates are incorporated into the Custom Template in place of the Base Template so they appear in the 'Main Utilities' section of the Dashboard and can be used by the user.

Separate from this structure, there are specialized templates for Data Replication that can only be executed directly by the Manager or the Business Central Job Queues. Replication templates include a weekly calendar with various configurable destinations.



The Manager can access and make use of all these tools or objects either from the stacks on the dashboard or by expanding the Actions menú:

Dashboard Manager

Manage

Actions

Fewer options

Open Entity - D

Base and Custom

Templates

Notifications a

Business Centra

Webhooks

Receptions

Setup

Templates

Custom Templates

Folders

WebHooks

Archive

Equivalences

Registered Operations

Permissions

Inspect & Wizards

Base

Replicators

Requests

Conditions

Get From

Conditions

Get From

Archive

Base Templates for users.

Customizations

Clipboard Pages

Custom Templates

Template Groups

Equivalences

Activity

Inbounds

Outbounds

Logs

Utilities

Main Utilities

Open Entity Background Notifications

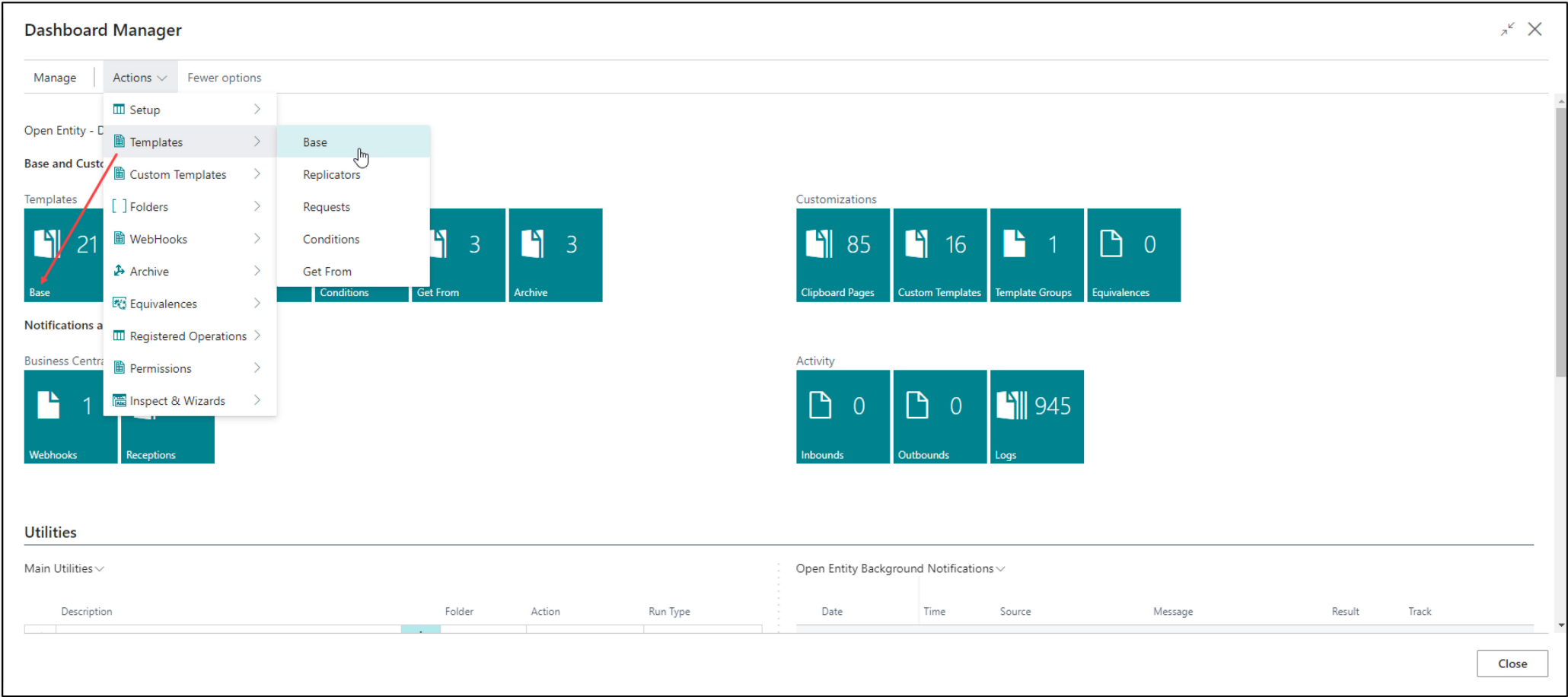
Description	Folder	Action	Run Type	Date	Time	Source	Message	Result	Track

Close

BASE TEMPLATES

For all actions to be developed on composite entities that require great flexibility, we use base templates. As their name suggests, they are the foundation upon which the rest of the templates are built.

We access the Base Templates from the Manager’s Dashboard:



BASE TEMPLATES LIST

When selecting one of the two mentioned options, a list of the created or downloaded templates will be displayed.

←

OE Template Base List

✓ Saved

🔖

📄

✎

🔗

🔍

📄

+ New

Edit List

Delete

Edit

👁 View

📄 Copy-Paste

📄 Export Data

📄 Excel

🔄 Run Process

📄 Copy Template

📄 Save File

More options

🔗

🔍

☰

1

Code ↑	Description	Transform at	Order	Enabled	Template Use	Folder		
→	COPYSALESORDERS	⋮	Copy-Paste Sales Orders	Both	0	✓	1	COPYPASTE
	CP-COPYSALESORDERS		Copy-Paste Sales Orders	Target	0	✓	1	COPYPASTE
	CREATEPURCHORDER		Make Purch. Order from Template SALESOR...	Source	0	✓	0	DEMO
	CUSTDOCSALES		Customer Document Sales	Target	0	✓	0	
	CUSTEXPORTEQ		Customer Export to other company	Target	0	✓	2	WEBHOOKS
	CUSTNEWDISCOUNTS		Increment discount to a customer	Source	300	✓	1	DEMO
	CUSTOMEREXPORT		Customer Export to other company	Target	0	✓	3	
	EXPORT_TEMPLATE		Copy any template user to another company	Source	0	✓	0	
	EXPORTJOURNALS		Export Jnl to another journal company with ...	Target	0	✓	1	
	GLENTY2JNL		Read the General Ledger Entries Selected...	Target	0	✓	0	HODGEPODGE
	JOBSEXPORT		Expor jobs to other companies	Source	0	✓	2	
	MODIFYITEMS		Modify some fields	Both	100	✓	1	DEMO
	MODIFYSALELINES		Modification of fields for sale lines	Source	200	✓	1	DEMO
	ONLYDOCSALES		Only Sales documents	Target	0	✓	0	
	SALEORDERFROMCUST		Import Sales Order	Target	0	✓	0	
	SALESORDERTOVEDOR		Create a Sales Order for my Vendor from m...	Both	0	✓	1	
	SCEN04-DISCOVERORDER		Find the record in Log by its track code	Source	10000	✓	0	EXTERNAL APP
	SCEN04-QTY ITEM ORD		Returns the Outstanding Quantity of Items	Both	10010	✓	0	EXTERNAL APP
	SCEN04-READORDLINES		Read the Lines of an Order	Source	10020	✓	0	EXTERNAL APP
	SCENARIO 04 - CUST		Get the customer code, name and credit for...	Source	10030	✓	0	EXTERNAL APP
	SCENARIO 04 - ORDER		Import Sales Order	Target	10040	✓	0	EXTERNAL APP

Links +

(There is nothing to show in this view)

Notes (1) +

Copy Sales Orders with filters and possibility to replace field values in header and lines. It must use the Launcher requester page to allow the entry of filters and substitutions. The transform at field

29/05/2024 • TOLO.SASTRE

CREATING A BASE TEMPLATE

By clicking on the NEW action, a blank base template form will be displayed.

OE Template Base

Copy-Paste

Export Data

Excel

Run Process

Save File

Archive

Copy Template

Permissions

Vars & Formulas

Get and Enable All Fields

Delete Obsolete/Unexistent Fields

Get Related Tables

General

Code

*

I

Permissions

0

Source Table ID

0

▼

Allow Requests

Source Name

Enabled

Description

Use-Create Equivalence

Operation

Insert-Modify

▼

Folder

▼

Table Trigger

Template Use

0

Lines

New Line

Delete Line

Use Key

Clear Key

Excel Header

Excel Line

Indent

	Target Table ID	Target Table Name	Indentation	Related Table ID	Tag	Operation	Table Trig...	Key	Fields	Formu...	Filters	Fusion	Excel	Ena...	Force
→	0		0	0		Insert-Mod...	☐		0	No	0	No	0	☐	☐

Field Relations >

Parameters >

Execution Properties >

USER TEMPLATE DATA

The template data is divided into six sections:

- 1. **General:** Contains the initial data of the template, such as its code, the 'parent' source data table, whether it will allow external requests, etc.
- 2. **Lines:** The data from the parent and related tables, their fields, filters, etc.
- 3. **Field Relations:** How or with which fields the previous lines are related.
- 4. **Parameters:** We can create parameter variables that serve for template logic, formulas, filters, etc.
- 5. **Output Properties:** General modifiers for output actions such as the 'perspective' of the action, whether it is executed in the foreground or background, etc.
- 6. **Excel Options:** Includes settings like the file and sheet name in Excel, and whether the indentation defined in the Lines section will be applied in Excel.
- 7. **Requester Page:** Selection of the page type to run the template and the option to hide some of its sections.
- 8. **XML Options (Imports):** This section is only relevant when the template is used for external imports (files or data submissions from third-party applications).

CREATING TEMPLATES

We are going to create a product-based template to export to another company or database.

← OE Template Base

✓ Saved

EXPORTITEMS

Copy-Paste

Export Data

Excel

Run Process

Save File

Archive

Copy Template

Permissions

Vars & Formulas

Get and Enable All Fields

Delete Obsolete/Unexistent Fields

Get Related Tables

⋮

1

General

Code

EXPORTITEMS

Source Table ID

27

Source Name

Item

Description

Template for Export Items

Operation

Insert-Modify

Table Trigger

Permissions

0

Allow Requests

Enabled

Use-Create Equivalence

Folder

Template Use

Lines

New Line

Delete Line

Use Key

Clear Key

Excel Header

Excel Line

◀

▶

Indent

Target Table ID	Target Table Name	Indentation	Related Table ID	Tag	Operation	Table Trig...	Key
→ 0		0	0		Insert-Mod...		

Folder ↑

User ↑

Description

COPYPASTE

TOLO.SASTRE

Templates dedicated to copy-paste acti...

DEMO

TOLO.SASTRE

Demos

EXCEL

TOLO.SASTRE

Templates 4 Excel

EXPORTS

TOLO.SASTRE

Templates for Export Data

EXTERNAL APP

TOLO.SASTRE

Templates 4 Connectivity

+ New

Show details

Select from full list

To do this, we must start by filling in the fields in the General section:

- **Code:** The main code of the template.
- **Source Table ID:** The source or root table on which the rest of the data will depend. Whether this field can be left empty or not depends on the type of page we expect to use to execute the action. If this template can be run with the selector and this field is empty, the selector will not know which initial data to display, and we will not be able to proceed with the action. However, if it's a template that we know will only be run with the launcher, there's no need to fill in this field. To make a template more flexible, we usually fill in this field and also insert it in the first line of the Lines section (with zero indentation), where we can further define the data with field and filter configurations.
- **Source Name:** A non-editable field that shows the name of the table selected in the previous field.
- **Operation:** When creating detail lines, this will default to the value in the header. If we change it and already have existing lines, the system will ask if we want to update them as well.
When we perform an action like exporting data, for example, with the **Transform at** field in the Execution Properties section set to **Source**, the operation applied to the entire template (lines) will be the one described in this field from the General section. Conversely, if the field is set to **Target or Both**, the operations executed will be those configured for this field in the Lines section, ignoring the Operation field from the General section.
- **Table Trigger:** Similar to the previous field, this is a default value that new lines will inherit, or it will ask if you want to update the existing lines. It enables the execution of internal processes in Business Central when an action like insert or modify is performed.
- **Permissions:** Specifies which users can execute the template. If the value is zero, any user can potentially run it. Once a user is defined, this 'freedom' is revoked, and execution is restricted to the configured groups or users who are enabled (the enable field activated).
We can access this configuration page either from the Permissions field in the General section or via the action button at the top.

We can access this configuration page either from the Permissions field in the General section or via the action button at the top.

OE Execute Permissions for Template

Not saved

+ New Edit List Delete

User	User Group	Allow Delete (from external apps)	Enabled
→ NOMADWAREDEV		☐	☐

- **Allow Request:** If enabled, it will allow an external request to execute the template to supply its data.
- **Enable:** If checked, this template is operational; otherwise, it cannot be executed. The import of templates from the Tenants page (Get Templates) takes this field into account. It will only read templates that have the Enable field activated.
- **Use-Make Equivalence:** Used exclusively in exports, it serves to create or remember an equivalence between a source and destination record.
- **Folder:** Used for organizational purposes to filter templates by function, owner, etc.
- **Template-Use:** Indicates how many custom templates are based on or use this base template.

NOTES ON THE GENERAL SECTION

1 - The **Code** field cannot be changed after a value has been entered.

OE Template Base

EXPORTITEMS2

Copy-Paste Export Data Excel Run Process Save File Archive Copy Template Permissions Vars & Formulas Get and Enable All Fields Delete Obsolete/Unexistent Fields Get Related Tables

The page has an error. [Refresh \(F5\)](#) to undo the change, or correct the error.

The Code of a Template can't be changed. Use Copy Template Action instead with the new Code and Delete the current after check that! Be careful, the current template code could being used by others Companies or Tenants!

General

Code	EXPORTITEMS2	Permissions	1
Source Table ID	27	Allow Requests	☐
Source Name	Item	Enabled	☒
Description	Template for Export Items	Use-Create Equivalence	☐
Operation	Insert-Modify	Folder	
Table Trigger	☐	Template Use	0

This control is necessary to prevent any issues that could arise from renaming the template. It may happen that a template is active and being used by other companies or databases.

If it's a new template, this wouldn't matter much, but for security reasons, this control is maintained. If we regret the code entered, the same error message provides an alternative solution (Copy Template action). If the current template has no associated dependencies, it can be deleted after verifying that the new template has been successfully copied with the new name or code.

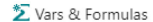
OUTPUT PROPERTIES, EXCEL PARAMETERS AND REQUESTER PAGE

← OE Template Base



✓ Saved 

EXPORTITEMS



Lines >

Field Relations >

Parameters >

Execution Properties

Transform at Source ▾

Run Type Normal ▾

Execute at Target ☒

Excel Properties

File Name myitems

Name of Sheet cronus

Include Indentation ☒

Requester Page

Requester Launcher ▾

Hide Replace ☐

Hide Filters ☐

Hide Parameters ☒

Hide tables section in launcher ☒

Links +

(There is nothing to show in this view)

Notes +

(There is nothing to show in this view)

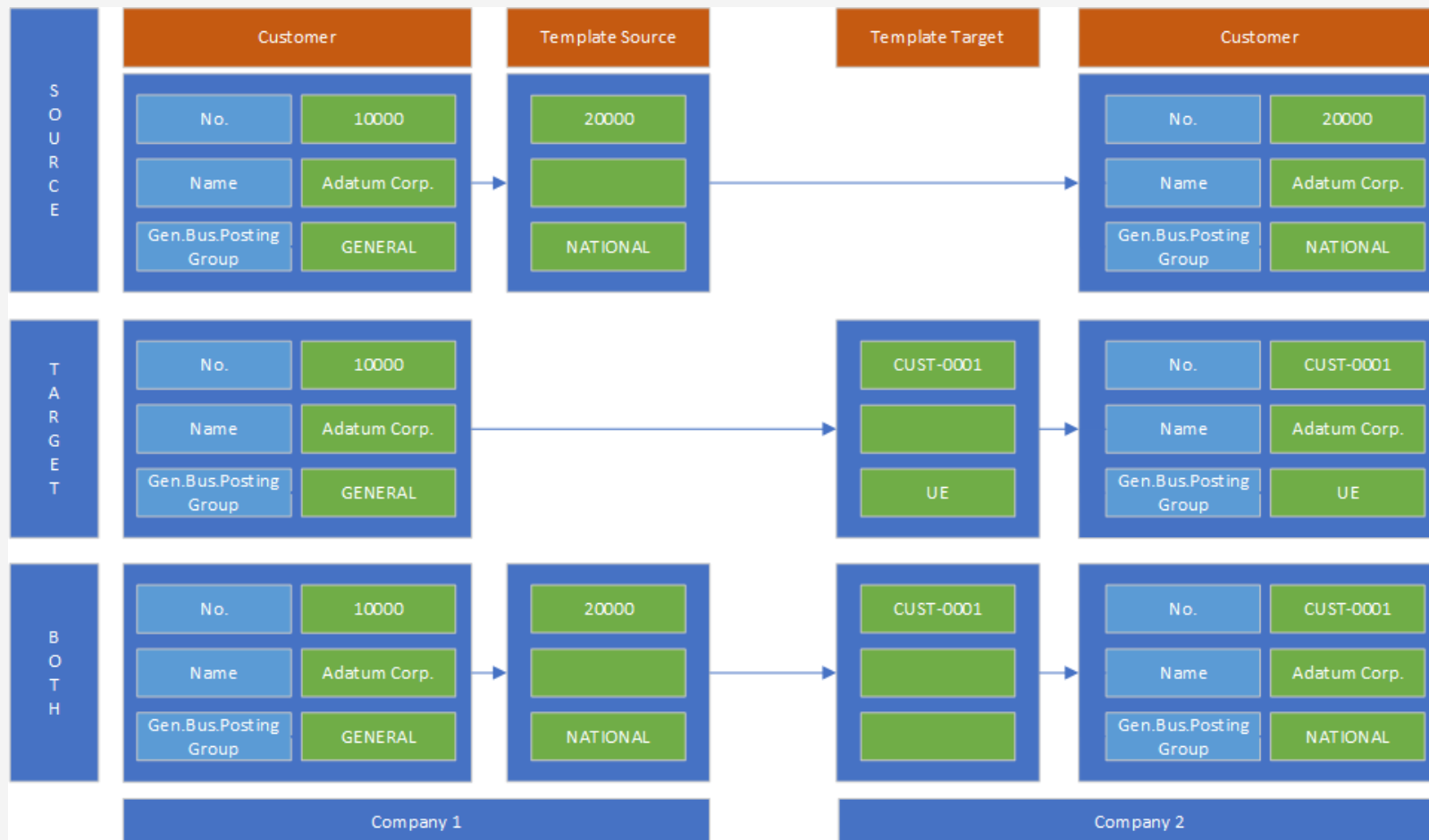
SECCION EXECUTION PROPERTIES

In this section, we find three fields:

- **Transform at:** This field indicates where the programmed transformations will take place, typically related to the Export operation, and has three possible values.

- **Source:** Means that the exported data will be sent and transformed at the source, with no additional changes possible, as they won't be received or processed by any destination template. The only changes or transformations possible will be defined at the source. For example, if we want some fields to have a fixed value when exported or retrieve values from a specific table or calculate them, all these modifications must be defined at the source (field configuration) when using this perspective.
- **Target (destination):** This is the opposite of the Source, where any source modifiers are ignored, and only the scheduled changes at the destination are processed. It needs to know where to "go" with the destination template code that has been configured.
- **Both:** As the name suggests, it combines both options, calculating changes at the source, sending them, and allowing them to be changed again at the destination. In this case, if the same field is modified at both the source and the destination, the final destination value will prevail.

Diagram 'Transform at' or Perspective:



Note: Choosing one perspective or another does not imply that the source or destination template should not have its own modifiers; they will simply be considered or ignored depending on the value of the **Transform at** field when executed.

IMPORTANT: ALL MODIFIERS OR TRANSFORMERS DEFINED IN THE FIELD CONFIGURATION FOLLOW THE ABOVE RULE, EXCEPT FOR THE **FUSE** FIELD, WHICH ONLY WORKS IN **SOURCE** OR **BOTH**.

When the **Transform at** field is set to **Source**, table and field names are generated with their numerical format when sent. In the other two options, the table and field names are transferred without special characters. If a tag is configured, either in the lines (tables) or fields, it is replaced by that tag. The **Tag** field or column is extremely useful for assigning different records or fields or for reading data from external sources.

- **Run Type:** normal, background, or programmed.

This indicates whether the execution of an action will be done in the foreground (normal execution), in the background (freeing the user to manage other tasks) or stored for execution by a scheduled process (Business Central job queue). All executed actions are recorded in the application's outbox, and the information received is stored in the recipient's inbox. When an action is executed, it logs the results (whether it succeeded, failed, and why).

Note: For scheduled executions, any data to be replaced or parameters to be used will be those defined as fixed in the template, not those launched with the launcher. The only actions that can be executed with the **Programmed** option are **Copy-Paste**, **Export Data**, and **Run Process**, and as mentioned, the required values are taken from the template when executed.

- **Execute at Target:** If enabled, the import at the destination will be automatically processed. Otherwise, the information will be stored in the destination inbox, waiting for a user to manage it.

Note: If enabled, the **Retain external execution** field in the **Set up** page (Series & Others section) will prevent actions with **Execute at Target** from external sources (another company, database, or tenant) from being automatically executed.

EXCEL PROPERTIES SECTION

The Excel Properties section allows you to configure a file name (File Name field) and a worksheet name (Name of Sheet field). If left blank, default names will be assigned based on the template code, date, and time.

The **Include indentations** field indicates whether we want to nest the data in the Excel columns according to the template structure or if we prefer all rows to start in the same column.

SECTION REQUESTER PAGE

This section defines whether the template has an initial page for requesting information or execution of a selector type, launcher, or if it runs without user intervention.

The selector will display a List-type page from which we can choose the data we want to process.

Record Lookup

No. ↑	Description ↑	Inventory ↑	Unit Price ↑
☒ 1896-S	Escritorio ATENAS	4	1.005,8
☐ 1900-S	Silla inv. PARÍS, negra	0	193,7
☒ 1906-S	Pedestal móvil ATENAS	5	435,8
☐ 1908-S	Silla giratoria LONDRES, azul	3	191
☐ 1920-S	Mesa de conferencia AMBERES	10	651,1
☐ 1925-W	Paquete de conferencia 1-6	0	189,8
☐ 1928-S	Lámpara ÁMSTERDAM	-20	55,2
☐ 1929-W	Paquete de conferencia 1-8	0	235
→ ☒ 1936-S	Silla invit. BERLÍN, amar.	100	193,7
☐ 1953-W	Sección invitados 1	-49	126,4
☐ 1960-S	Silla inv. ROMA, verde	2	193,7
☐ 1964-S	Silla inv. TOKIO, azul	4	193,7
☐ 1965-W	Paquete de conferencia 2-8	-81	235
☐ 1968-S	Silla giratoria MÉXICO, negra	-30	191
☐ 1969-W	Conjunto de conferencia 1	-7	343,5

OK

Ca

OE Launcher

Edit List

Launch

Template

Code

EXPORTITEMS

Table Name

Item

Table ID

27

OE Filters Section >

OE Replace Section >

OE Parameters Section >

OE Tables Selection

Target Table Name

Enabled

→

Item

☒

Close

With the launcher page, we can substitute field values, configure selection filters, input parameters, and enable or disable the lines (tables) that make up the structure of the template without needing to modify them directly.

The remaining four fields in the 'Requester Page' section are used to hide sections of the Launcher page ('Hide Replace', 'Hide Filters', 'Hide Parameters', and 'Hide Tables Selection').

SECTION XML Options (Import)

In this section, we can reorder an XML input by placing simple elements or nodes at the beginning, followed by more complex nodes or those with "children" (which could be imported into other tables). It also renames a tag by incrementing its name numerically if it finds a duplicate in a different branch of the data structure.

Activating these options may be relevant to ensure the correct import of data received from another external application.

XML Options (Import)

Sort XML ☒

Rename XML Tags ☒

SECTION LINES

The Lines section is where we actually create the structure of our new entity. Its structure is typically hierarchical, but it is also possible to generate a linear template (one level). If we have configured the 'Source Table ID' field in the General section, we can link it to the line tables directly from the Field Relations section.

It is also possible to configure a user template without a defined header table, but with data lines, whose selection will depend on the filters we have set. If we want a user to have the option to manually select records from the Requester Page Selector, we must have a value set in the 'Source Table ID' field.

The most common scheme is to repeat the header table in the first line, as it is in this section that we can configure more precisely the data selection and manipulation (fields, filters, fields for Excel, reading key, etc.) that will be used in the process.

Note: To preview the data before operating with them in the database, we can use the 'Save File' action, which will save an XML file to our computer.

OE Template Base

EXPORTITEMS

Copy-PasteExport DataExcelRun ProcessSave FileArchiveCopy TemplatePermissionsVars & FormulasGet and Enable All FieldsDelete Obsolete/Unexistent FieldsGet Related Tables

General

CodeEXPORTITEMS

Source Table ID27

Source NameItem

DescriptionTemplate for Export Items

OperationInsert-Modify

Table Trigger

Permissions1

Allow Requests

Enabled

Use-Create Equivalence

Folder

Template Use0

Lines

New LineDelete LineUse KeyClear KeyExcel HeaderExcel LineIndent

Target Table ID	Target Table Name	Indentation	Related Table ID	Tag	Operation	Table Trig...	Key	Fields	Formu...	Filters	Fusion	Excel	Ena...	Force
27	Item	0	27		Insert-Mod...			0	No	0	No	0	☒	☐

Object ID ↑

Object Type ↑

Object Caption

27	Table	Item
30	Table	Item Translation
31	Table	Item Picture Buffer
32	Table	Item Ledger Entry
33	Table	Intercompany Setup Diagnostic

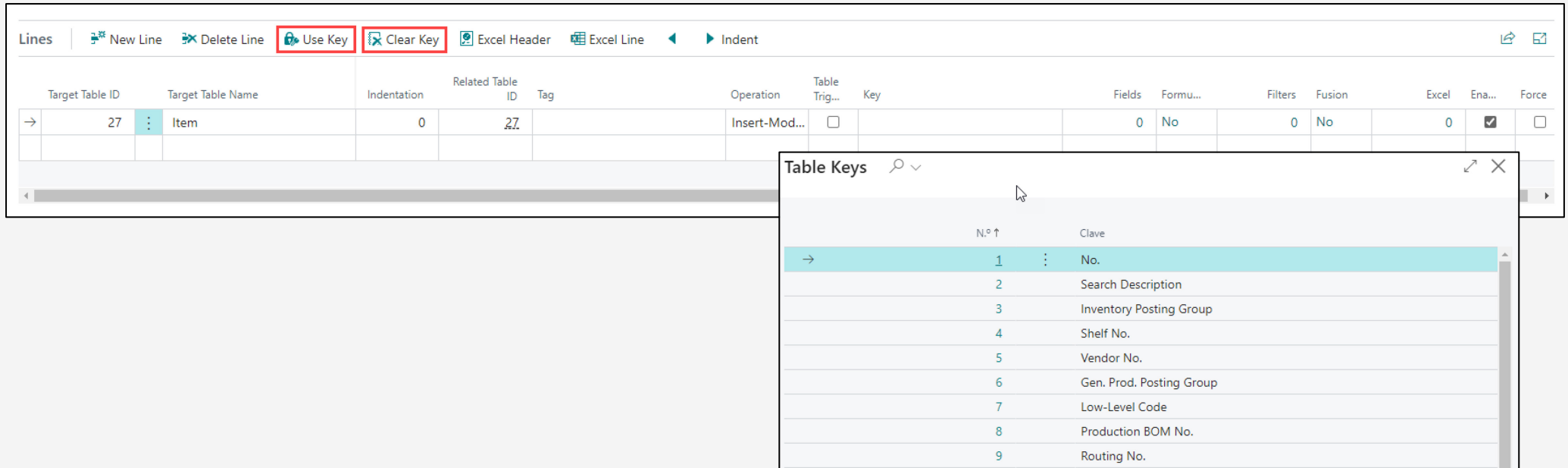
Show detailsSelect from full list

Execution Properties >

FIELDS IN THE LINES SECTION

- **'Target Table ID'**: The table number. Selectable through the drilldown control or the 'three dots' button.
- **'Target Table Name'**: The table name is not an editable field; it is automatically populated when the previous field is validated.
- **'Indentation'**: The nesting level in the data hierarchy we are creating. It is managed using the left and right arrows in the actions menu of the Lines section. This field cannot be edited directly.
- **'Related Table ID'**: Informational field that indicates the number of the previously related table. It is not editable and changes based on the assigned indentation level in relation to its parent line.
- **Tag**: If any text is entered in this field, it will replace the table name. This feature also exists in the field configuration, where it replaces the field name. It is extremely useful for matching data from different entities, acting as a link for external requests from another Business Central instance, or serving as a tag for filtering in queries or external processes.
- **'Operation'**: For the user template, the available operations are Insert-Modify, Incremental Insert, Only Read, Only Insert, and Only Modify.
 - This field only operates during data entry, such as when performing Paste or Import actions in the destination database.
 - **Insert-Modify**: Inserts or modifies the received data.
 - **Incremental Insert**: Inserts a record whose primary key is or ends with an integer. Before inserting data, it checks for the last number and increments its value to avoid collisions with existing data. This operation is typical for data insertion, such as in general journals that may contain other records differentiated by their line number.
 - **Only Read**: Only reads the data but does not import it. This is particularly useful for searching values outside the entity's structure (Get From) and for storing values to be used later (variables) in the template.
 - **Only Insert**: Only performs the insert operation. If the record already exists, the error will be logged in the Operation Log.
 - **Only Modify**: Only performs the modification operation. If the record does not exist, the error will be logged in the Operation Log.
- **'Table Trigger'**: This field only operates during data entry and triggers events associated with table insertion and modification. There is an equivalent configuration for fields.

- **'Key'**: The sorting key used to select the data. If left blank, the primary key is used by default. You can select the key in the Lines action bar with the 'Use Key' option. 'Clear Key' will erase the currently configured key.



The screenshot shows the 'Lines' interface with a table containing one row. The 'Use Key' and 'Clear Key' buttons in the top bar are highlighted with red boxes. A 'Table Keys' dialog is open, displaying a list of keys with 'No.' selected.

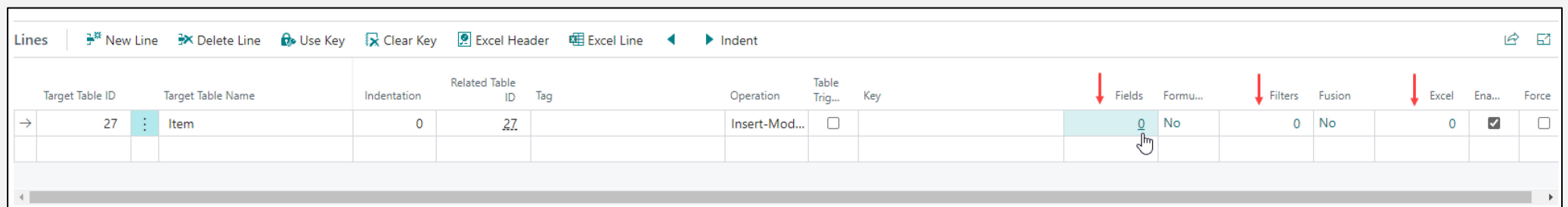
Target Table ID	Target Table Name	Indentation	Related Table ID	Tag	Operation	Table Trig...	Key	Fields	Formu...	Filters	Fusion	Excel	Ena...	Force
→ 27	Item	0	27		Insert-Mod...	☐		0	No	0	No	0	☒	☐

N.º ↑	Clave
1	No.
2	Search Description
3	Inventory Posting Group
4	Shelf No.
5	Vendor No.
6	Gen. Prod. Posting Group
7	Low-Level Code
8	Production BOM No.
9	Routing No.

- **'Enable'**: Enables or disables the line to be processed.
- **'Force'**: Allows you to "force" the creation of a record in a table without any related imported data.

The remaining fields—**Fields**, **Formulas**, **Filters**, **Fusion**, and **Excel**—are informational and reveal how many elements they contain or if any properties are configured.

The most relevant ones are **Fields**, **Filters**, and **Excel**, which will display the number of defined elements. You can access their respective configurations by clicking on them.



The screenshot shows the 'Lines' interface with red arrows pointing to the 'Fields', 'Filters', and 'Excel' columns. The 'Fields' column shows '0', 'Filters' shows '0', and 'Excel' shows '0'.

Target Table ID	Target Table Name	Indentation	Related Table ID	Tag	Operation	Table Trig...	Key	Fields	Formu...	Filters	Fusion	Excel	Ena...	Force
→ 27	Item	0	27		Insert-Mod...	☐		0	No	0	No	0	☒	☐

FIELD CONFIGURATION (Fields):

By clicking on the value in the Fields column, the field configuration page will open. If the value of this field is zero and any general template action is executed, the result for this line will be null since it will not contain any elements (fields).

Field List Page:

←TableData - 27

OE Field Lines

+ New

Edit List

Delete

Delete All

Get & Enabled All

Enabled All

Disable All

Check Duplicates.

Enabled Selected

Disable Selected

Check formulas

...

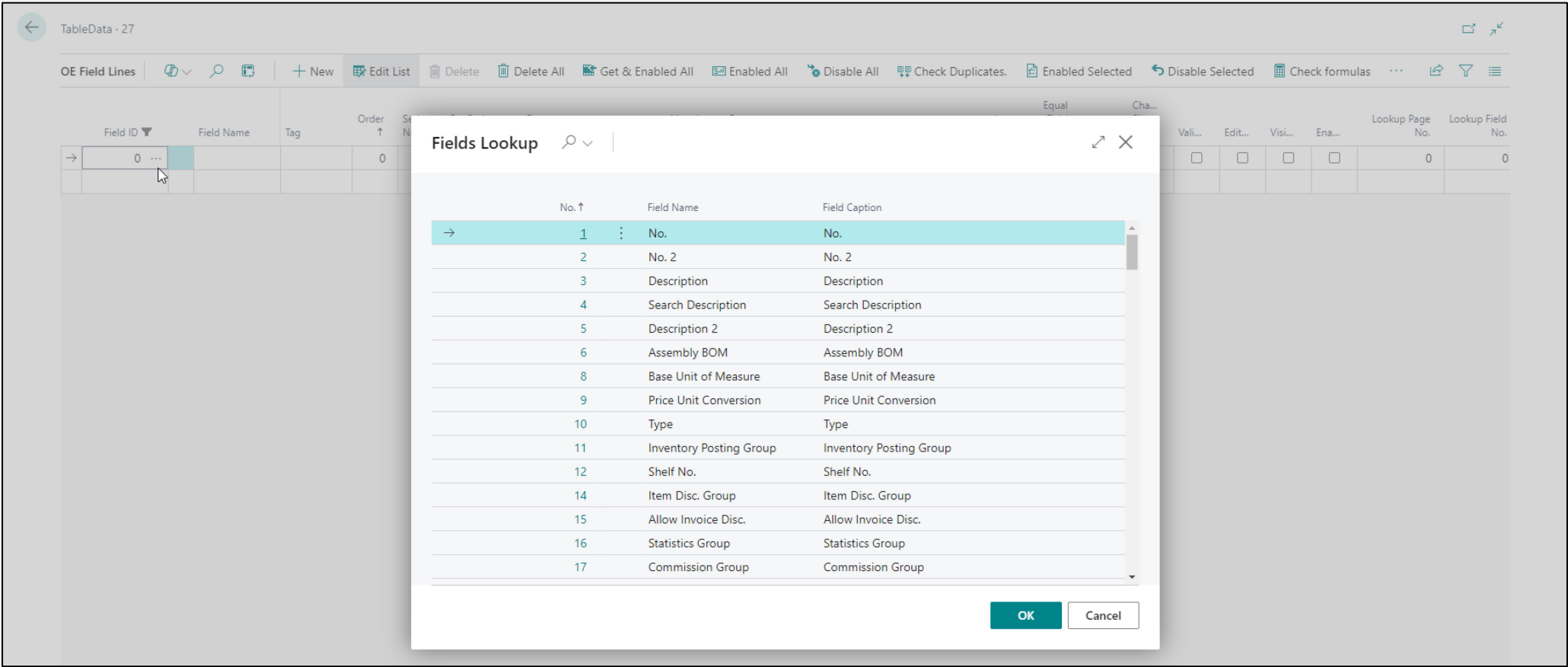
Field ID	Field Name	Tag	Order	Serie No.	Get Serie When	Get From	Field Value	Mapping (Imports)	Ena... Map	Variable Id	Formula	Condi...	Ign... For...	Equal Field No.	Fuse	Cha... Sign (nu...	Vali...	Edit...	Visi...	Ena...	Lookup Page No.	Lookup Field No.
→	0		0					0	☐			No	☐	0		☐	☐	☐	☐	☐	0	0

On the **Field Configuration** page, in addition to adding, deleting, enabling, or disabling the fields needed for our custom entity, this is also where the core of data transformations takes place. Before diving into this aspect, let's outline the main maintenance actions for this configuration.

It should be clear that the manipulation of these data is not performed on the actual tables, but rather on a field configuration template within the **Open Entity** application.

MANUAL ENTRY

Click on the 'New' or 'Edit List' action, then select a field from the 'Field ID' column.



Once this action is performed, you will see the field in your field configuration template, and the **Enabled** field will automatically activate after inserting the row. Manual editing is typically used when there are only a few fields to configure. To save time and effort, you can use the **'Get & Enable All'** action and then delete the rows (fields) that are not needed.

The following actions, **'Delete'** and **'Delete All'**, will remove a single field or all fields, regardless of whether the **Enabled** field is activated or not.

The **'Get & Enable All'** action automatically retrieves all the fields from the table and enables them. Additionally, it performs an extra check to prevent duplicate field names when converting them to XML (without special characters) by adding a tag with the field number.

← TableData · 27 ✓ Saved  

OE Field Lines    + New  Edit List  Delete  Delete All  **Get & Enabled All**  Enabled All  Disable All  Check Duplicates  Enabled Selected  Disable Selected  Check formulas ...  

Field ID	Field Name	Tag	Order	Series	Get Series	Get From	Field Value	Mapping	Ena...	Variable Id	Formula	Condi...	Ign...	Equal	Fuse	Cha...	Vali...	Edit...	Visi...	Ena...	Lookup	Page	Lookup
			↑	No.	When			(Imports)	Map				For...	Field		Sign					No.	No.	Field
														No.		(nu...							No.
→	1	No.	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	2	No. 2	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	3	Description	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	4	Search Descr...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	5	Description 2	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	6	Assembly BO...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	8	Base Unit of ...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	9	Price Unit Co...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	10	Type	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	11	Inventory Po...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	12	Shelf No.	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	14	Item Disc. Gr...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	15	Allow Invoice...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	16	Statistics Gro...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	17	Commission ...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	18	Unit Price	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	19	Price/Profit C...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	20	Profit %	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	21	Costing Met...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	22	Unit Cost	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	24	Standard Cost	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	25	Last Direct C...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	28	Indirect Cost ...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		
	29	Cost is Adjus...	0					0	☐			No	☐	0		☐	☐	☐	☐	☒	0		

With the buttons **Enable All**, **Disable All**, **Enable Selected**, and **Disable Selected**, you can easily and efficiently manage the activation of fields as needed. Only the fields with the **Enabled** column activated will be considered for actions on the template.

The **Check Duplications** button, as mentioned earlier, will add a custom name in the **Tag** column to prevent duplicate or conflicting names when converting to XML format during Open Entity processes (which don't allow special characters). You can modify the tag if desired, but it must be different from the original matching field.

For instance, consider fields named **'Line Discount %'** and **'Line Discount *'**. Both would convert to **'LineDiscount'**, which can cause issues during XML conversion. The **Check Duplications** and **Get & Enable All** actions help avoid this problem by detecting potential duplicates in advance and updating the **Tag** column with a unique name, such as

'LineDiscount3', where "3" would represent the numeric code of the field in Business Central. Remember, if the **Tag** column is filled in, it will replace the field name during the processes that are executed.

The '**Lookup Page No.**' and '**Lookup Field No.**' fields allow you to perform or force a lookup action on fields that appear on the launcher page. Some fields might not need this action, but others will not trigger a lookup automatically.

The rest of the columns in this configuration list will be discussed later in the **Data Transformation** section.

FILTERS

By clicking on the value in the **Filters** column in the Lines section, you will access the filter configuration page:

In the filter list, by pressing **New** or **Edit List**, a blank row will be created where you can select the field to filter from the **Field ID** column.

There are three ways to filter a field:

- 1. Using the **Operator – Field Value** pair (fixed value).
- 2. Using the **Operator – Var or Formula** pair.
- 3. Using a **Filter String**, which is the common filter string used in Business Central.

Note: The range operator '..' must have both a start and an end. Filters like '**010124..**' or '**..CUST-0100**' will NOT work. Filters such as '**010124..310324**' or '**CUST-0001..CUST-0100**' will work correctly.

Field ID	Field Name	Order	Operator	Field Value	Var or Formula	Filter String	Editable	Visible	Enabled	Lookup Page No.	Lookup Field No.
→ 1	No.	0	<>	1936-S			☐	☐	☒	0	0

For the **Filter String** column, the filter shown in the previous image would be represented as '**<>1936-S**'.

Among the three filtering options, **Filter String** is the most versatile since it supports Business Central filters (range, logical operators, etc.).

Each time you manually validate data in any of the three fields ('**Field Value**', '**Var or Formula**', or '**Filter String**'), the remaining fields are cleared automatically.

In the '**Var or Formula**' column, you can compare the field with a variable whose value has been previously read or provided, or with the result of a formula that you have configured.

The **Launcher Page** will show the field **'No.'** with the **Editable** property activated, allowing the user to modify that filter value.

Let's configure a couple of additional filters that will help us demonstrate some Excel field properties, such as **accumulation** (sum up) and **final total**.

[illegible]

Excel Fields Configuration:

We can leverage the entity we are building to generate reports in Excel. Since the data requirements (fields) for actions like copy-paste, export, archiving, etc., are likely to differ significantly from those needed for an Excel export, there is a specific configuration for Excel fields.

You can access the **Excel field configuration** by clicking on the value in the **Excel** column.

The method for configuring Excel fields is almost identical to that of normal field configuration, with the exception of the following columns:

- **'Format Number'**: This allows you to format numeric values in Excel.
- **'Change Sign'**: This is used to reverse the sign of a numeric value.
- **'Sum up'**: Indicates that the values in this field will be accumulated.
- **'Final Total'**: Specifies that a final total cell and a summary line will be created for the field or column.

We have configured the following Excel fields using the **Order** column to arrange them as desired.

← OE Excel Fields

✓ Saved

📄 ↗

🔗

🔍

📄

+ New

Edit List

Delete

Delete All

📄 Get All

📄 Enabled All

🔌 Disable All

📄 Enabled Selected

🔌 Disable Selected

More options

🔗

🔍

☰

Field ID	Field Name	Tag	Order	Format Number	Change Sign (numbers)	Sum up	Final Total	Enabled
1	No.		10		☐	☐	☐	☒
3	Description		20		☐	☐	☐	☒
68	Inventory		30	###0.00	☐	☒	☒	☒
72	Sales (Qty.)		40	###0.00	☐	☒	☒	☒
78	Sales (LCY)		50	###0.00	☐	☒	☒	☒
85	Qty. on Sales Order	Orders(Qty.)	60	###0.00	☐	☒	☒	☒
6660	Qty. on Sales Return	Returns(Qty.)	70	###0.00	☐	☒	☒	☒
71	Purchases (Qty.)		80	###0.00	☐	☒	☒	☒
77	Purchases (LCY)		90	###0.00	☐	☒	☒	☒
84	Qty. on Purch. Order	Purch. Order(Qty.)	100	###0.00	☐	☒	☒	☒
→ 5707	Qty. in Transit	Transit	110	###0.00	☒	☒	☒	☒

In the template's Lines section, we can configure the Excel header schema to optionally display company data, date, time, user, and applied filters, as well as configure the Excel lines (number of lines between titles, data rows, hide table name, etc.).

You can access these properties from the 'Excel Header' and 'Excel Line' actions in the **Lines** section of the template.

Lines

New Line

Delete Line

Use Key

Clear Key

Excel Header

Excel Line

◀

▶ Indent

Excel Header Properties

Excel Header Properties

Company Name

User

Date

Filters

Time

Excel Lines Properties

←

OE Excel Properties Template Line

+

✓ Saved

EXPORTITEMS · 10000

Excel Properties

Blank Rows Table & Field Headers

Before Table

After Table

Before Fields

After Fields

Blank Rows Lines Detail

Before Line

After Line

Blank Rows Totals

Before Total

After Total

Final Total

Hide

Table Name

Field Names

View Only First

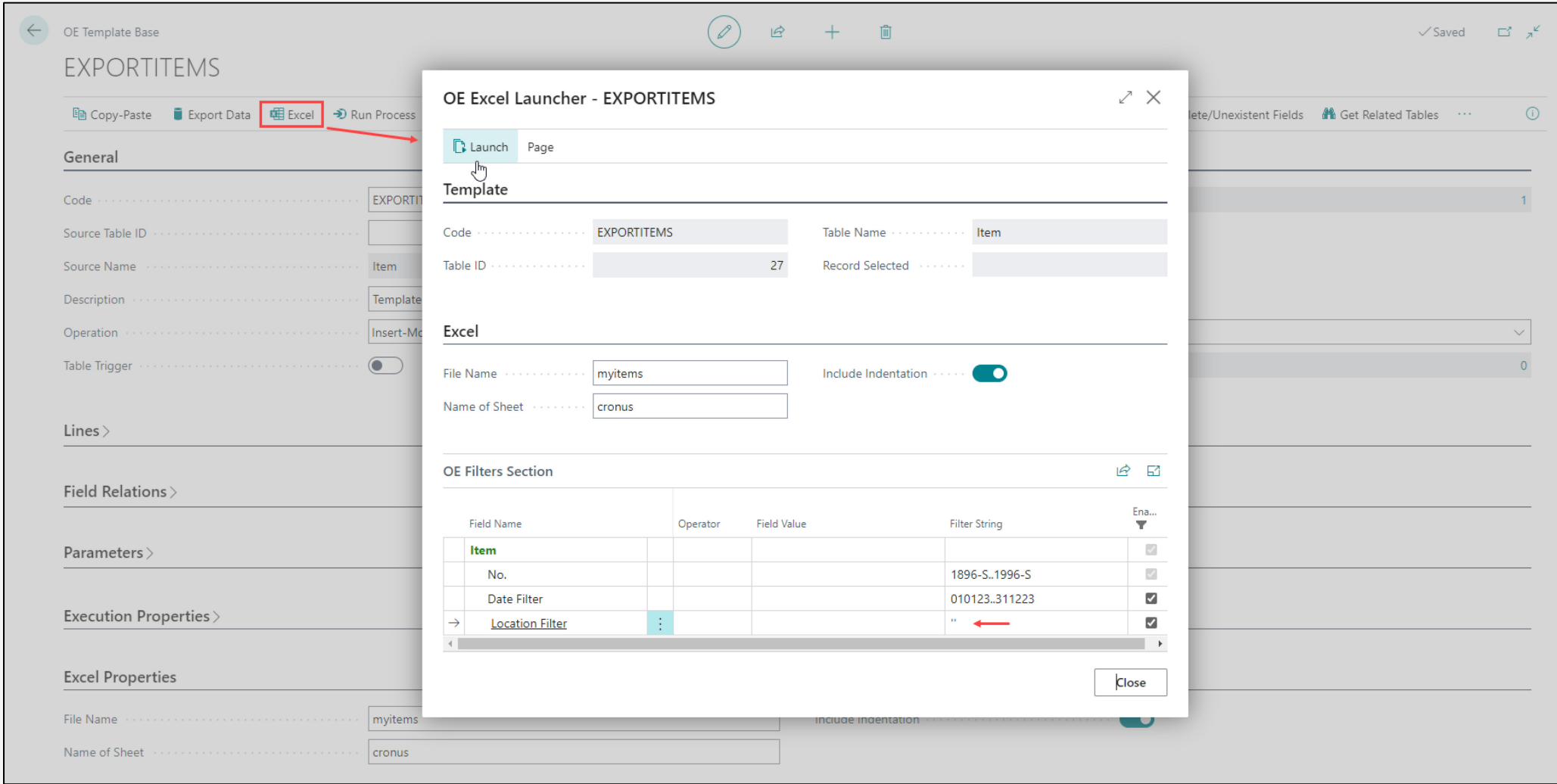
Title Table

Title Fields

Numerical Format

Total Numerical Format

Then, we execute the action to create the Excel report from the general actions of the template. When the Excel Launcher page appears, we can edit the Excel section as needed, and after configuring the desired filters, we execute the 'Launch' action. In this example, the 'Location Filter' field has two single quotes ("), which will select only the data for products that do not have a location.



When the process has finished, you will see a notification in your web browser indicating that a file has been downloaded, most likely to your Windows **Downloads** folder.

If you open it, you will see an Excel sheet similar to the following:

	A	B	C	D	E	F	G	H	I	J	K	L
1	Company	CRONUS ES										
2	Date	25/07/24										
3	Time	12:02:35										
4	User	TOLO.SASTRE										
5	Filters	No. : 1896-S..1996-S, Date Filter : 010123..311223, Location Filter : "										
6												
7	Item											
8												
9	No.	Description	Inventory	Sales (Qty.)	Sales (LCY)	Orders(Qty.)	Returns(Qty.)	Purchases (Qty.)	Purchases (LCY)	Purch. Order(Qty.)	Transit	
10												
11	1896-S	Escritorio ATENAS	4,00	137,00	137.794,60	0,00	0,00	141,00	110.628,60	0,00	0,00	
12	1900-S	Silla inv. PARÍS, negra	0,00	90,00	17.433,00	0,00	0,00	90,00	13.599,00	0,00	0,00	
13	1906-S	Pedestal móvil ATENAS	5,00	78,00	33.992,40	0,00	0,00	83,00	28.211,70	0,00	0,00	
14	1908-S	Silla giratoria LONDRES, azul	3,00	57,00	10.887,00	0,00	0,00	60,00	8.934,00	0,00	0,00	
15	1920-S	Mesa de conferencia AMBERES	10,00	59,00	38.414,90	0,00	0,00	69,00	35.052,00	0,00	0,00	
16	1925-W	Paquete de conferencia 1-6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
17	1928-S	Lámpara ÁMSTERDAM	-6,00	126,00	6.955,20	0,00	0,00	134,00	5.775,40	0,00	0,00	
18	1929-W	Paquete de conferencia 1-8	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
19	1936-S	Silla invit. BERLÍN, amar.	100,00	102,00	19.757,40	0,00	0,00	202,00	30.522,20	0,00	0,00	
20	1953-W	Sección invitados 1	-49,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
21	1960-S	Silla inv. ROMA, verde	2,00	82,00	15.883,40	0,00	0,00	85,00	12.843,50	0,00	0,00	
22	1964-S	Silla inv. TOKIO, azul	4,00	56,00	10.847,20	0,00	0,00	60,00	9.066,00	0,00	0,00	
23	1965-W	Paquete de conferencia 2-8	-81,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
24	1968-S	Silla giratoria MÉXICO, negra	-20,00	84,00	16.044,00	0,00	0,00	84,00	12.507,60	0,00	0,00	
25	1969-W	Conjunto de conferencia 1	-7,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
26	1972-S	Silla giratoria MUNICH, amar.	0,00	84,00	16.044,00	0,00	0,00	84,00	12.507,60	0,00	0,00	
27	1980-S	Silla giratoria MOSCÚ, roja	0,00	48,00	9.168,00	0,00	0,00	48,00	7.147,20	0,00	0,00	
28	1988-S	Silla inv. SEUL, roja	0,00	57,00	11.040,90	0,00	0,00	57,00	8.612,70	0,00	0,00	
29	1996-S	Pizarra ATLANTA, base	10,00	91,00	127.791,30	0,00	0,00	101,00	110.625,30	0,00	0,00	
30												
31	Total Item		-25,00	1.151,00	472.053,30	0,00	0,00	1.298,00	406.032,80	0,00	0,00	
32												
33												
34	Total Item											
35												
36		Total Inventory	-25,00									
37		Total Sales (Qty.)	1.151,00									
38		Total Sales (LCY)	472.053,30									
39		Total Orders(Qty.)	0,00									
40		Total Returns(Qty.)	0,00									

Total Item

Total Inventory

-25,00

Total Sales (Qty.)

1.151,00

Total Sales (LCY)

472.053,30

Total Orders(Qty.)

0,00

Total Returns(Qty.)

0,00

Total Purchases (Qty.)

1.298,00

Total Purchases (LCY)

406.032,80

Total Purch. Order(Qty.)

0,00

Total Transit

0,00