

## Configuring Key Mapping in Intercompany Solution

Key mapping is an important process during implementation of intercompany solution. Key Mapping is required to successfully replicate masters and transactions across branch companies configured in the solution.

In this document, we are covering following broad sections on key mapping:

1. Why key mapping is required?
2. Data harmonization process
3. How to perform Key Mapping?
4. Best way to perform key mapping for bulk data or large number of companies.
5. Impact of company template in key mapping
6. Key mapping while introducing new company in existing landscape
7. Key mapping masters list

### Why key mapping is required?

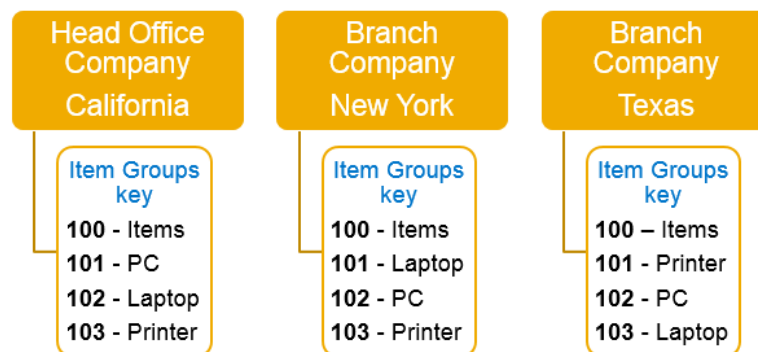
Some business objects in SAP Business One have an internal primary key which differs from the key that visible in SAP GUI (e.g. freight, length and width UOM, weight UOM, payment terms, item group, etc.)

It is important to understand how are the internal keys generated.

Internal keys are generated in the sequence in which the data is entered. It is quite possible that the same set of records are entered in a different sequence in all the participating companies. This means the primary key generated at Database level could be different for the same description of records in different company databases.

In following diagram, even though all item group master data exists in all three branch companies (California, New York and Texas), their internal primary keys are different. For Example, Item Group “**Laptop**” has internal key as 102 in head office (California), 101 internal key in Branch (New York) and 103 internal key in Branch (Texas).

To successfully replicate item group master, the internal keys of all participant companies must be mapped to each other.



Essentially, you need to map the similar master data record description across companies. However, you may have different description because of different language. In that case, you need to manually map the records.

Not only this, data harmonization is a mandatory process before undertaking the Key Mapping exercise.

## Data harmonization process

Before initiating the key mapping process, you must manually ensure that number of records in each company are equal for all key mapping master. For reference purposes, please refer to the list of key mapping master below in this article.

E.g., Item Groups master: if in Head office you have 'Items' as a single group in the item groups master; and in other participant company, you have 'Items' and 'PC' as groups in the item group master; and in the third company you have 'Items' and 'Laptop' in the item group master as shown below.

Item Groups	Head Office Company California	Branch Company New York	Branch Company Texas
Items	✓	✓	✓
PC	✗	✓	✗
Laptop	✗	✗	✓

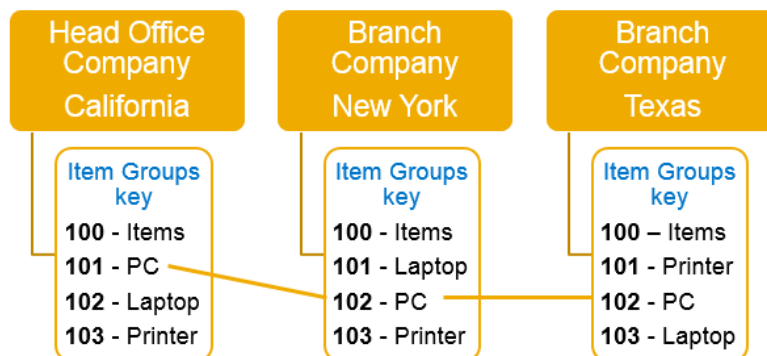
Then, you must ensure that all three companies should have same number of groups defined in the item group master. I.e. Items, PC and Laptop are defined in all three companies.

## How to perform Key Mapping?

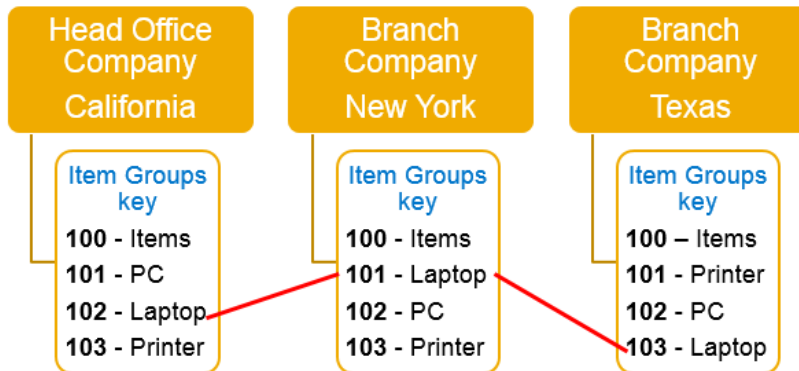
To successfully replicate master data for all key mapped objects, the internal keys of all branch companies must be mapped to each other.

In following diagram, even though all item group master data exists in all three branch companies (California, New York and Texas), their internal primary keys are different.

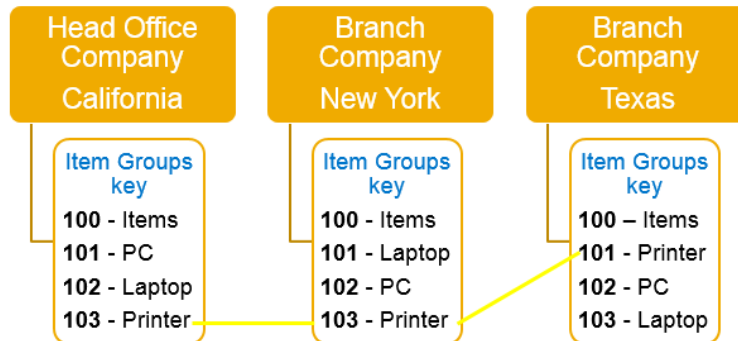
- Item Group "PC" has internal key as 101 in head office California company need to map with 102 internal key in New York Branch and 102 internal key in Texas Branch Company.



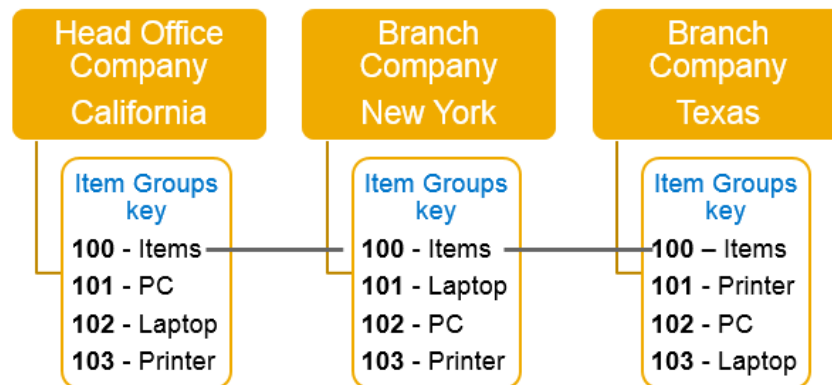
- Item Group “Laptop” has internal key as 102 in head office California company need to map with 101 internal key in New York Branch and 103 internal key in Texas Branch Company.



- Item Group “Printer” has internal key as 103 in head office California company need to map with 103 internal key in New York Branch and 101 internal key in Texas Branch Company.



- Item Group “Items” has internal key as 100 in head office California company need to map with 100 internal key in New York Branch and 100 internal key in Texas Branch Company.



### Steps to perform the key mapping:

- First you import all the key mapping data to be mapped. The import process may take some time depend on the data or number of companies.

SAP Integration solution for SAP Business One - Intercompany Integration Solution for SAP Business One

User: B1admin Host: 127.0.0.1:8080 Duplicate About

SLD **SETUP** PREFERENCES MONITORING

Setup

- E-mail Connectivity
- Company Template
- Landscape
- Key Mapping

**Key Mapping**

Key Mapping Step1: Import and View Key Mapping Data

Process Company Data

Branch Company: ALL Object Name: ALL Import Object Data View Summary View Object Data

Prepare Excel Templates

Export Template

Base Company: ACME-NY Branch Company: ALL Key Mapping Data: ALL Object Name: ALL Export

Import From Excel Template

Base Company: ACME-NY Browse Template Import

Or

Keymapping Object Selection

Base Company: ACME-NY Key Mapping Data View: Detail Object Name - Object ID: ALL

Key Mapping Data

Save Reset Auto Map

Object Name	ACME-NY	ACME-CA	Consolidation	Status
BusinessPartnerGroup(10)	Customers (C) : 100	Customers (C) : 100	N/A	
BusinessPartnerGroup(10)	Vendors (S) : 101	Vendors (S) : 101	N/A	
BusinessPartnerGroup(10)	Large Accounts (C) : 102	Large Accounts (C) : 102	N/A	
BusinessPartnerGroup(10)	Distributors (C) : 103	Distributors (C) : 103	N/A	
BusinessPartnerGroup(10)	Small Accounts (C) : 104	Small Accounts (C) : 104	N/A	
BusinessPartnerGroup(10)	Government (C) : 105	Government (C) : 105	N/A	
BusinessPartnerGroup(10)	High Tech (C) : 106	High Tech (C) : 106	N/A	
BusinessPartnerGroup(10)	Construction (C) : 107	Construction (C) : 107	N/A	

Step2: Export and Import Key Mapping Data using Excel Template

Step2: Perform Key Mapping manually or using Auto Map

- You can view the summary of import data by choosing **View Summary** button. With summary report, you can check whether all key mapping records are consistent in all companies or not. In this report, Consistent denotes that the imported data has same number of records for that object across all the participating companies and Inconsistent denotes that the imported data does not have same number of records for that object across all the participating companies

**Summary Report**

Refresh

**Key Mapping Data**

**Import Summary**

S.No	Object Name	Import Status	ACME-CA	ACME-NY	Consolidation	Status
1	Business Partner Group	Success	16	16	N/A	Consistent
2	Currency	Success	4	4	4	Consistent
3	Discount Groups	Success	0	0	N/A	Consistent
4	Freight	Success	2	2	N/A	Consistent
5	Item Group	Success	7	7	N/A	Consistent
6	Length And Width UOM	Success	6	6	N/A	Consistent
7	Manufacturer	Success	10	10	N/A	Consistent
8	Package Types	Success	4	4	N/A	Consistent
9	Payment Terms	Success	3	3	N/A	Consistent
10	Price List	Success	6	6	N/A	Consistent
11	Unit of Measurement Group	Success	3	3	N/A	Consistent
12	Units of Measurement	Success	10	10	N/A	Consistent
13	Weight UOM	Success	5	5	N/A	Consistent

- You can use the Microsoft Excel template for mapping master data records. For details about this option, refer to the Key Mapping process in the Admin guide.
- If you are not using excel then the next step will be to choose the base company and status and object to be mapped. Note that you can choose **ALL** objects but if you plan to run the AutoMap option, we recommend you to do it for each object separately.

5. Once you choose the base company, a table is presented at the bottom of the Key Mapping window including the internal keys to be mapped for the selected object.
6. You can manually choose the internal keys or you can use the AutoMap option.
7. The Auto Map maps the internal keys based on the same description and leave the keys it could not trace for you to map manually.
8. Finally, choose Save to save the object mapping.
9. Repeat these steps for each object in the master record list.

**Note:** Key mapping exercise is a one-time activity at the time of solution deployment. Once the solution is deployed, all subsequent master data replication will do the necessary key mappings automatically.

Let me explain this with following example:

After deployment, if you create a new item group in the branch company, let say “**Apparel**” the application will automatically replicate this item group in all the participant companies and perform the key mapping automatically.

## Best way to perform key mapping for bulk data or large number of companies

When you are having large number of companies or having large number of data in the system for key mapping masters, it is always recommended to use the excel template for key mapping.

### Tips and Tricks - Using Excel Template

Once you **Export** the key mapping excel from the application as shown in below screenshot, application generates the key mapping excel template with all key mapped masters from all participant companies.

Prepare Excel Templates					
Export Template					
Base Company	IC_US_HO	...	Branch Company	ALL	...
Key Mapping Data	ALL	...	Object Name	ALL	...
<b>Export</b>					
Import From Excel Template					
Base Company	IC_US_HO	...	Browse Template	Import	

In Excel template, first you need to filter the template using **Object** column and then filter the template using the **Display Key** if description is same and then provide the **Mapping Key** that needs to be the same for particular set of records.

	A	B	C	D	E	F
1	PartnerCode	Object	InternalKey	DisplayKey	MappingKey	Error
5	IC_US_BR_1	10	103	Distributors (C)	K1	
10	IC_US_HO	10	105	Distributors (C)	K1	
15	IC_US_BR_2	10	110	Distributors (C)	K1	
20	IC_US_BR_3	10	104	Distributors (C)	K1	

Once you provide the mapping key in all records, import the template as shown below.

**Prepare Excel Templates**

**Export Template**

Base Company	IC_US_HO	...	Branch Company	ALL	...
Key Mapping Data	ALL	...	Object Name	ALL	...

**Import From Excel Template**

Base Company	IC_US_HO	...	Browse Template	<b>Import</b>
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If you encounter an error during the import process, download the Excel template and check the error details displayed in the Error column. Rectify all errors and import the Excel template again.

## Impact of company template in key mapping

With company template feature, user can enable or disable the replication of masters across branch companies. If you make the changes in the company template, let's say you have enabled the new master for replication and which requires the key to be mapped then you must perform the key mapping for that particular master. Otherwise system gives an error during replication or wrong data gets updated in the recipient branch companies.

For Example, if you have enabled the replication of **“Address Format”** for US localization template as shown below and the same template is assigned to branch companies in intercompany landscape.

**Company Template Configuration**

**Company Template**

**Template Selection**

Save
  Delete
  Copy
  Export Template
  Import Template
  Cancel
  Print

Template ID: IC\_CT\_1  
 Template Name: IC\_CT\_US\_1  
 Localization: United States Of America

**Template Configuration**

S.No.	Master/Business Cycle	Receiver Property List	Replication		Receiver Action			Notification	
			Send	Receive	Add	Update	Delete	Success	Failure
1.	Account Classification	Receiver Property List	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2.	Address Format	Receiver Property List	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.	AP CreditMemo-AR CreditMemo	Receiver Property List	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4.	AP Service Invoice Allocation AR Invoice - AP Invoice	Receiver Property List	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5.	AP Service Invoice Allocation Journal Entry	Receiver Property List	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

In this case, you must perform the key mapping of this record as **“Address Format”** is a key mapped master. For key mapping, you need to follow the same steps as mention above, import the key mapping record for address format and then perform the key mapping as shown below.

**Keymapping Object Selection**

Base Company: IC\_US\_HO

Key Mapping Data View: Detail | Object Name - Object ID: AddressFormat - 131

**Key Mapping Data**

Save | Reset | Auto Map

Object Name	IC_US_HO	IC_US_BR_1	IC_US_BR_2	IC_US_BR_3
AddressFormat(131)	European Standard Address : 1	European Standard Address : ...	X	X
AddressFormat(131)	Zip Code Before City Without Co	Zip Code Before City Withou	X	X
AddressFormat(131)	Switzerland : 11	Switzerland : 11	X	X

## Key mapping while introducing new company in existing landscape

If you have introduced a new company in the intercompany landscape, then you must ensure that new company must have the same number of key mapped master as other companies have. In other words, identical number of records must exist in the new company as well.

Once you complete the deployment with new company, you must perform the key mapping for this new company.

## Key mapping masters list

Following are the list of all Key Mapping masters:

Master Data
Address Format
Bank
Business Partner Group
Commission Group
Credit Card
Currency
Customs Groups
DNF Code
Document Type
File Format
Freight
House Bank Account
Instructions
Intrastat Configuration
Item Group
Languages
Length And Width UOM
Manufacturer
Material Group
NCM Code

Master Data
Payment Blocks
Payment Terms
Portfolio
Price List
Sales Person
Service Code
Service Group
Shipping Type
Weight UOM
Fuel Code
SPED Profile Setup
CNAE Code
Units of Measurement
Unit of Measurement Groups
Discount Groups
Package Types
Industry
Occurrence

**Note:** If you are using only consolidation feature then you need to perform the key mapping for Currency master only.

Recommendation is to carefully map all **Key Mapped Masters** while performing the key mapping process. This is extremely important process for the solution to work correctly.