

Master Data Conversion: a Bigger Challenge and Also a Much Needed Priority Today.. For Beginners



Applies to:

SAP R/3 4.7. For more information, visit the [Master Data Management homepage](#).

Summary

This document is an overview of the data conversion process which is a vital part of any SAP implementation project. The data which resides in the legacy system needs to be moved to SAP server. This document is aimed in explaining the process of migrating the data from legacy or a SAP system to the main SAP system. This process results in the creation of the master data in the SAP system.

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Introduction

This article is aimed at understanding the master data conversion process. This process involves the migration of the data either from a legacy system or from a SAP system. This conversion process is involved in every SAP implementation or any development project. So if we look at a broader sense in terms of the importance of this process, then it is really huge. As there is a huge market out there which we can categorize in two main areas: one where companies are implementing fresh SAP in their organization and second, companies are consolidating their ERP landscape by integrating their legacy systems with SAP, or doing away with their legacy systems by moving all their master data into their SAP Landscape.

So in case of fresh SAP implementation the data from the legacies are to be migrated into the SAP system. And in case of consolidation, the data in other ERP or legacy systems are being moved into SAP system.

I have aimed this article for beginners in this area. And have tried to talk about this approach for master data migration which would be very helpful in the master data migration projects.

What is Data Conversion?

It is nothing but migration of data from a source system (legacy system or an SAP system) in to the main SAP system which is the target system. The data from the source system is converted into a suitable format which can be read and used by the SAP system.

After the necessary configuration is done as per the business landscape in case of Fresh SAP implementation, then comes the stage where the data from the legacy server which the organization or the company is using is to be migrated into the SAP server.

In case of consolidating the SAP landscape in places where SAP is already used, may be the business wants to completely get rid of the legacy systems gradually, then in those scenarios too, data conversion and migration becomes very important.

Data conversion is a very important task as it not only involves conversion and migration of data but one needs to ensure that the data is fool proof, refined, without any redundancies, and it complies with the SAP design or the client's landscape.

It also needs to be ensured that the data is perfect and fulfills the exact requirements of the client.

Data conversion process

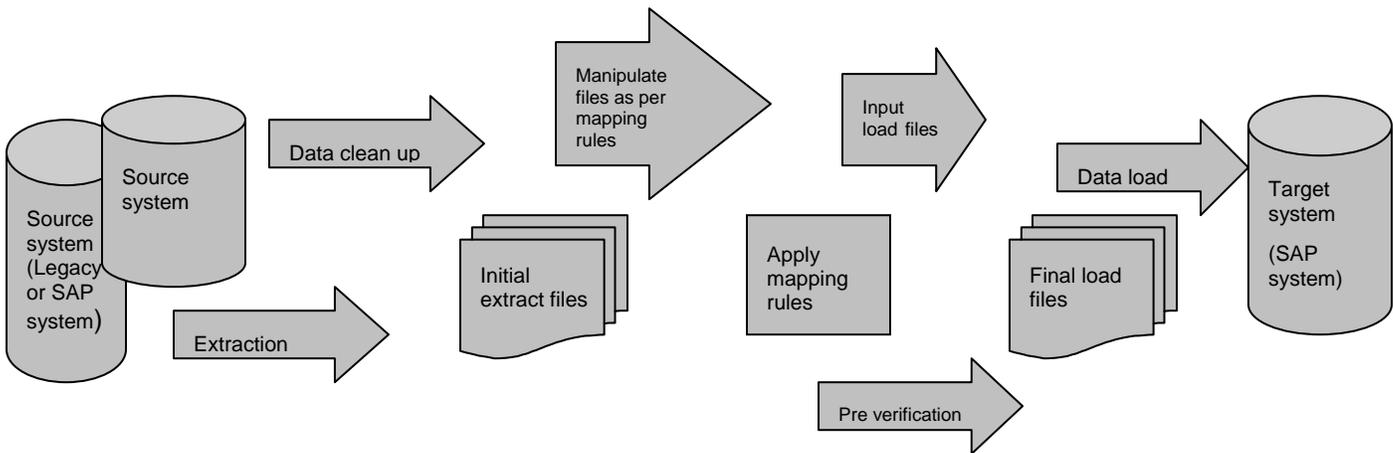
Data conversion process involves following steps:

- 1) Mapping documents (This document contains the field mapping rules between source system and target system)
- 2) Extract data from source system.
- 3) Data clean up in the extract files
- 4) Create input files
- 5) Loading the files into SAP.
- 6) Data verification

There are several methods for data conversion like LSMW, BDC, etc. But here I will talk about the BDC method (Batch data communication) by which we can perform data conversion process. It is more effective in cases where one deals with huge amount of data which cannot be handled by LSMW, but can be managed by BDC method very effectively.

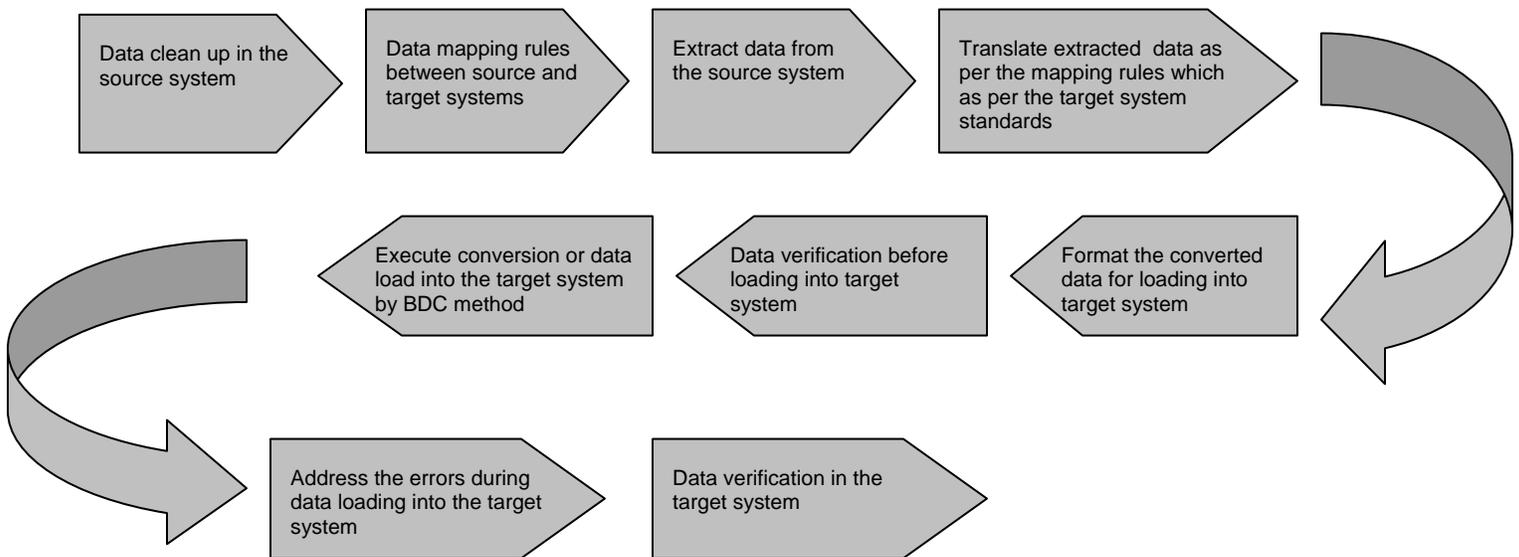
To say that BDC method is one of the effective method won't be wrong, as it will take care of huge amount of data to be converted which other methods won't and it will also take care of the customized design of the client landscape as coding is easier to do in it. It has more flexibility and can be re-used again and again.

If the client landscape has some customized design then that can also be addressed by this method as we can modify the extraction and loading programs as per the needs.



The above diagram shows the flow of activities in the data conversion process and the IT Resource involvement at various stages.

Flow chart below gives a clearer picture of the steps involved in the data conversion process.



Extraction program is a customized program which is designed taking into account the design of the source and target systems both. So this program is used to extract the data from the source system into an extracted file (flat file) which is then converted into an excel file. This excel file contains huge amount of data which is then worked upon and tailored or converted into a format by means of either data scrubbing (data filtering) as per the target system design following the mapping rules which have been already defined. This is called the load file or the input file which is then loaded onto the target system.

Loading program is also a customized program which is designed as per the design of the target system. So when this program is used to load the data into the target system by BDC method then it creates the master data into the target system as per the basic minimum requirements envisaged during the design phase of the project.

The main advantage of these programs are that once they are created then they can be reused again and again by addressing minor changes in them as per future design requirements.

We will talk about the various processes involved in the data conversion in brief:

1. Mapping documents

This step is one of the crucial step in the data conversion process as here we have to do the mapping of the source data field with the target data field. Based on this the extraction and loading programs are designed. This mapping finally is the key for data loading onto the target system.

2. Extract data from source system.

As it itself says that it is an extraction step whereby the extraction program is run into the source system to extract the data into a file. Then this file is converted into an excel file. And this file is worked upon into an input file for loading onto the target system.

3. Data clean up in the extract files

Here clean up activities are done as per the requirements whereby the redundancies in the data is removed from the extracted files and also only that data is included which is required to be loaded into the target system. There is also special emphasis given to the quality of the data.

4. Create input files

After data clean up the file for loading into the target system is prepared and formatting is also taken care of while preparing the files which is in the excel format.

5. Loading the files into SAP.

The formatted, cleaned data files are then loaded onto the target system by executing the loading program which is done by the BDC method. The errors while loading the data is also addressed here. This results into creation of the master data like material master, customer master, source lists, etc.

6. Data verification

After data loading into the target system, verification of the data is done by the key users from the client or key business users.

The above steps are the general steps by which data conversion process happens

After all these steps still data maintenance carries on during which there can be minor data corrections or it might also address minor changes in the configuration design, and stabilization phase of the project starts and continues for some time till all the master data issues are addressed.

General Master data team composition

The below narration of the roles and responsibilities of the IT resources that would be a part of this kind of a project involves a broader perspective per project requirements.

Site Implementation Team (SIT)

SIT IT Analyst/Programmer

Identifies source systems for data conversions. Supports conversion approach and data mapping. Develops extract programs / creates extract files.

SIT Key Users

Perform data cleanup. Support conversion approach and data mapping (ensure that any business related issues are incorporated into the approach / mapping). Perform data verification.

SIT Master Data Coordinator

Coordinates data cleanup and data verification efforts. Assists in allocating SITE data resources.

ERP Master Data Team

ERP Master Data Coordinator

Coordinates conversion of legacy data to ERP: orients the Site Implementation Team to the conversion work plan tasks and roles and responsibilities. ensures conversion deliverables are met for each phase of the project,

identifies data conversion requirements, plans and manages conversion test fires, supports cut-over conversion activities.

Data design / Conversion Deployment Representative

Identifies data cleanup opportunities with the site. Works with the site on conversion approach and data mapping, and creates documentation. Creates/updates functional specs for master data conversions. Documents data verification guides/plans for the site to follow. Performs pre-conversion verification of conversion files. Follows-up on conversion execution issues.

Conversion Developer

Creates technical design for new/changed conversion programs. Implements the conversion programs, and performs unit testing.

Conversion Execution Representative

Executes the automatic conversions into the target system. Documents and communicates execution results.

Summary

The above process can be summarized by saying that if the processes are defined in a well fashioned manner and with right approach then it can be very useful in making data conversion process a smooth task. The BDC approach in case of huge amount of data will help in the smooth transition of the project to Go-live.

The more important point to make here is if this process can be adopted and further stabilized then it can be re-used again and again as and when required.

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