

# SAP Test Data Migration Server

Release 4.0



# Typographic Conventions

Type Style	Description
<i>Example</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
<b>Example</b>	Emphasized words or expressions.
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example</b>	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE	Keys on the keyboard, for example, F2 or ENTER.

# Document History

Version	Date	Change
1.0	October 2011	First version of the document
1.1	July 2012	Updates to the Data Import Through Files migration solution list under Section 3.11.
1.2	October 2012	Updates to the Data Import Through Files migration solution list under Section 3.11. Information about transaction TDMS_CFGCHK in Section 2.3.5.
1.3	March 2013	Notes added in Section 1.3
1.4	August 2013	System landscape for data scrambling added in Section 2.4.
1.5	February 2014	E-mail notification engine in Section 4.8 and transaction TDMS_ACT_SICF in Section 2.3.5.
1.6	January 2015	Migration Parameters in Section 4.5; TDMS Fiori app in Section 3.12.
1.7	July 2015	Note added to Section 3.9 Transfer of SAP ERP HCM Data; Section 2.2 Detailed View of Application Coverage
1.8	December 2015	All references to SAP Service Marketplace replaced with references to the SAP Support Portal wherever relevant. Migration parameters section updated in Section 4.5
1.9	June 2016	Various minor updates. Added Section 4.6.
2.0	November 2018	Product Release details updated

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# 1 Getting Started

## 1.1 About this Document

### Purpose

This Master Guide is the central starting point for the technical implementation of SAP Test Data Migration Server (SAP TDMS). You can find cross-scenario implementation information as well as scenario-specific information in this guide.

#### Note

The central starting point for the technical upgrade of your SAP application/solution is the Upgrade Guide, which you can find on SAP Support Portal at <http://support.sap.com/tdms>.

Use the Master Guide to get an overview of SAP TDMS, its software units, and its scenarios from a technical perspective. The Master Guide is a planning tool that helps you to design your system landscape. It refers you to the required detailed documentation, mainly:

SAP Notes

SAP Library documentation

#### Note

You can find the most current information about the technical implementation of SAP TDMS and the latest installation and configuration guides on SAP Support Portal at <http://support.sap.com/tdms>.

We strongly recommend that you use the documents available here. The guides are regularly updated.

### Constraints

The business scenarios that are presented here serve as examples of how you can use SAP software in your company. The business scenarios are only intended as models and do not necessarily run the way they are described here in your customer-specific system landscape. Ensure that you check your requirements and systems to determine whether these scenarios can be used productively at your site. Furthermore, we recommend that you test these scenarios thoroughly in your test systems to ensure they are complete and free of errors before going live.

This Master Guide primarily discusses the overall technical implementation of SAP TDMS, rather than its subordinate components. This means that additional software dependencies might exist without being mentioned explicitly in this document. You can find more information on component-specific software dependencies in the corresponding installation guides.

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## 1.2 Related Information

### 1.2.1 Planning Information

For more information about planning topics not covered in this guide, see the following content on SAP Support Portal:

Content	Location on SAP Service Marketplace
Latest versions of installation and upgrade guides	<a href="http://support.sap.com/tdms">http://support.sap.com/tdms</a>
Platform Availability Matrix	<a href="http://support.sap.com/pam">http://support.sap.com/pam</a>
High Availability	<a href="http://scn.sap.com/docs/DOC-7848">http://scn.sap.com/docs/DOC-7848</a>
Information about Support Package Stacks, latest software versions and patch level requirements	<a href="http://support.sap.com/sp-stacks">http://support.sap.com/sp-stacks</a>
Information about Unicode technology	<a href="http://scn.sap.com/community/internationalization-and-unicode">http://scn.sap.com/community/internationalization-and-unicode</a>

### 1.2.2 Further Useful Links

The following table lists further useful links on SAP Support Portal:

Content	Location on SAP Service Marketplace
Information about creating error messages	<a href="http://support.sap.com/message">http://support.sap.com/message</a>
SAP Notes search	<a href="http://support.sap.com/notes">http://support.sap.com/notes</a>
SAP Software Distribution Center (software download and ordering of software)	<a href="http://support.sap.com/swdc">http://support.sap.com/swdc</a>

### 1.2.3 Related Master Guides

Not applicable.

## 1.3 Important SAP Notes

You must read the following SAP Notes before you start the installation. These SAP Notes contain the most recent information on the installation, as well as corrections to the installation documentation.

Make sure that you have the up-to-date version of each SAP Note, which you can find on SAP Support Portal at <http://support.sap.com/notes>.

SAP Note Number	Title	Description
<a href="#">1632914</a>	SAP TDMS 4.0: Release Information Note(RIN)	Contains release information for SAP TDMS.
<a href="#">1741455</a>	SAP TDMS 4.0: Basis Composite Note	Contains references to notes that are relevant for solutions running SAP Test Data Migration Server (TDMS) 4.0 using the DMIS 2011 and DMIS_CNT 2011 Add-Ons.
<a href="#">1711327</a>	TDMS 4.0: Composite note for Industry-Specific Solutions	Contains a list of notes relevant to industry-specific solutions for Banking, Utilities, CRM for Utilities, Retail, and Oil & Gas that run SAP TDMS.
<a href="#">1713981</a>	TDMS 4.0: Composite note for SAP TDMS Applications	Contains a list of notes relevant to SAP ERP, SAP CRM, SAP SCM, SAP SRM, and SAP BW.
<a href="#">1619059</a>	SAP TDMS 4.0: Composite Note for HCM	Contains information about the steps you need to carry out before implementing the migration solutions for SAP ERP HCM.
<a href="#">1653982</a>	SAP TDMS 4.0: Composite note for TDMS BPL	Contains a list of notes relevant to the Business Process Library in SAP TDMS.
<a href="#">1665861</a>	SAP TDMS 4.0: Collective note for Scrambling	Contains the prerequisites and a list of all notes to be applied for scrambling for SAP TDMS.
<a href="#">2087622</a>	Cross Support Package Compliance for TDMS 4.0	Contains information about executing SAP TDMS in a landscape where the participating systems are on different SP levels.



SAP Note Number	Title	Description
<a href="#">1577442</a>	Installation/Upgrade DMIS_CNT 2011_1 on NW 7.xy / ERP 6.0	SAP TDMS Installation Note
<a href="#">1577441</a>	Installation/Upgrade DMIS 2011_1 on NW 7.xy / ERP 6.0	SAP TDMS Installation Note
<a href="#">1577504</a>	Upgrade to NW 7.xy / ERP 6.0 with DMIS_CNT 2011_1	SAP TDMS Upgrade Note
<a href="#">1577503</a>	Upgrade to NW 7.xy / ERP 6.0 with DMIS 2011_1	SAP TDMS Upgrade Note
<a href="#">1634482</a>	SAP TDMS 4.0 - Corrections on User roles and authorizations	This note describes issues caused by missing authorizations in delivered TDMS user roles.
<a href="#">1645060</a>	Authorization check implementation for Scrambling	User does not have authorization for Scrambling workbench in TDMS 4.0.
<a href="#">1648228</a>	TDMS 4.0 corrections: Composite Note	Contains the prerequisites and a list of all notes to be applied in SAP TDMS.
<a href="#">1648916</a>	TDMS: Applikationshilfe nur in Englisch verfügbar	To view the application help in English from a DE logon.
<a href="#">1892481</a>	Conflicting generated objects using DMIS-based	Refer to this note when SLT, SAP LT and SAP TDMS is installed as separate control/central system(s) connecting to the SAME SAP SENDER (and RECEIVER) SYSTEM.

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## 2 SAP Test Data Migration Server Overview

SAP Test Data Migration Server (SAP TDMS) is a high-speed data extraction tool. You can use the tool to create lean and easy-to-maintain non-production systems by extracting only the required business data from the production systems. The versatility of the tool allows you to minimize your infrastructure and maintenance expenses while enhancing the effectiveness of your development, test, and training activities.

You can use SAP TDMS to carry out the following major actions:

- Populate non-production systems such as test system, training systems, quality systems and so on with SP business data from your production system

- Create a fresh test system (that is not the production system) using TDMS Shell Creation



### Caution

Do not use SAP TDMS to create or populate data in a production system.



### Note

SAP TDMS is compatible with all standard database applications including SAP HANA. For more information about using SAP TDMS for your HANA database, see the Operations Guide for SAP TDMS 4.0 on SAP Support Portal at <http://support.sap.com/tdms>.



### Note

Beginning SAP TDMS 4.0 Support Package 07, you can carry out data migration even if you upgrade just the control system. Your sender system and receiver system clients can be on a lower SP. The sender and receiver clients can also be on different SPs. However, the lowest SP allowed is SAP TDMS 4.0 SP07. For more information, see SAP Note 2087622.

### 2.1 Application Coverage

SAP TDMS is available for the following applications:

#### Applications

- Business Suite
- SAP ERP
- SAP ERP HCM
- SAP CRM
- SAP SCM
- SAP SRM

## Industry Solutions

- AFS
- Banking (Loans and Deposits)
- Oil & Gas (Downstream)
- Utilities
- CRM for Utilities
- Healthcare
- DIMP
- Retail

## Other

- SAP NetWeaver BW
- SAP GTS

## 2.2 Detailed View of Application Coverage

### SAP TDMS for SAP Business Suite Applications

ERP	CRM	SRM	SCM	BW	HCM
Purchasing	Marketing	Shopping Cart	SNC	InfoCubes and DSO object	Recruitment (Standalone e-recruitment is not supported)
Financial Accounting	Sales	RFx	EWM	InfoObjects	Employee Administration
Controlling					Organizational Management
Asset Accounting Fixed Asset Management					Global Employee Management (limitations with Scrambling) Concurrent Employment
COPA - Costing based					Payroll

Material Ledgers					Benefits Management
SD - Sales & Distribution	Service	Strategic Purchasing and Procurement	Demand Planning	PSA Tables (optional)	Workforce Cost Planning & Simulation
Customer master Vendor master Address Data	Partner Channel	Contract Management	SCM_APO PP/DS SNP	Change Log Tables (optional)	HCM Processes and Forms
Material Management Production planning Plant Maintenance Manufacturing Resource planning	Interaction Center	Auctions and Bidding		BPC (pilot solution)	
Human Resources	Web Channel	Supplier Self-Services	BW content		
Quality Management		Survey			Time and Attendance
Warehouse Management					Travel Management
Apparel Footwear Solutions					
SAP Transportation					
SAP for Automotive					
Trading Contracts					
Agency Business					

## SAP TDMS for SAP Industries

IS – Utilities	CRM Utilities	IS – Retail	IS - Oil & Gas (Downstream)	Banking
Retail and services	Sales and Service e-services	Store Master Data	Exchanges (EXG)	Deposits and loans management
Meter Operation	Financial Customer Care- Credit and Collections Management	Purchasing and Sales	Transportation and Distribution (TD)	Business Partners External Accounts Internal Contracts Master Contracts
Customers and Channels	Marketing, Planning and Campaign Management	Merchandise	Hydrocarbons Product Management (HPM)	Financial Conditions and Pricing Business Process Orders Post-Processing Orders
Generation	Utility Contracts	POS DM	Traders and Schedulers Workbench (TSW)	Post-Control Orders Change Pointers
Transmission and distribution	C & I Sales Account and Complex Quote Management	Assortments and Listing	Interface to Terminal Automation System (TAS)	End-of-Day Dues Accounts Defined in Customizing Clearing Accounts
	Premises, Installations, Point of Delivery(POD)	Articles and Conditions		
	CIC	Promotions		

## 2.3 Required Release for Applications

This section provides an overview of the release required for the applications that run SAP TDMS.

For the latest component version and patch level requirements for SAP TDMS 4.0, see SAP Note [1577441](#) (Installation of DMIS\_2011) and SAP Note [1577442](#) (Installation of DMIS\_CNT\_2011).

Application	Required Release
SAP ERP	SAP R/3 Enterprise 4.7 SAP Basis Releases 6.20, 6.40, or 7.00
SAP ERP HCM	SAP HCM 4.7
SAP CRM	SAP Basis Release 7.00 and SAP CRM 7.0
SAP SCM	SAP SCM 7.0 SAP Basis Release: 6.20, 6.40, or 7.00
SAP SRM	SAP SRM 7.0
Banking (Loans and Deposits)	SAP Banking 6.0
Oil & Gas (Downstream)	SAP Oil & Gas 4.72
Utilities	SAP Utilities 6.0
CRM for Utilities	SAP CRM 6.0
Retail	SAP Retail 6.0
SAP NetWeaver BW	SAP Basis Release 6.40 and SAP NetWeaver BW 7.0
SAP GTS	SAP GTS 8.0

## 2.4 System Landscape

### 2.4.1 Procurement of Software

After you purchase a SAP TDMS software license, you can download the software from the SAP Software Download Center (<http://support.sap.com/swdc>).

## 2.4.2 Systems Required for the TDMS Landscape

This section describes the system landscape requirements for SAP TDMS.

### Caution

If you are on SAP TDMS 4.0 Support Package 6 or lower:

All the systems in your TDMS landscape must be configured to the same TDMS Release and version level. From SPO7 onwards this restriction is not applicable anymore.

The following figure shows a typical landscape and the communication flow among the systems:

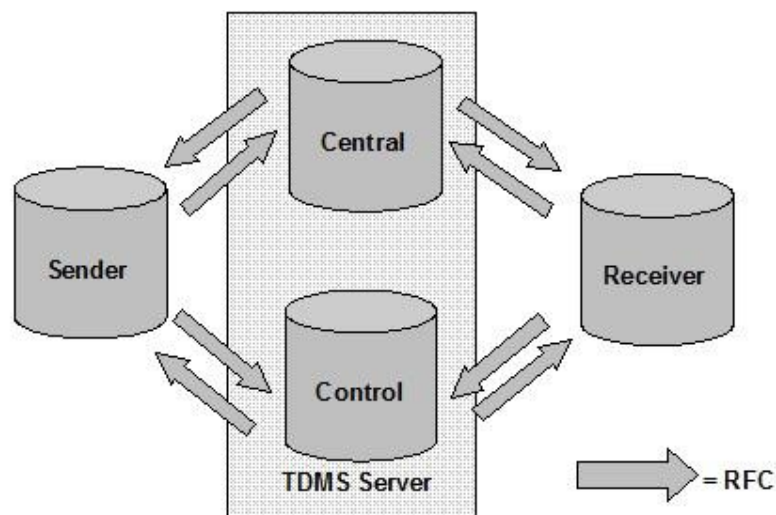


Figure 1 System Landscape for SAP TDMS

Details of the system landscape are provided below.

### Sender System

Supplies data to the non-production system, which you want to set up using SAP TDMS. The sender system is usually a production system.

However, if you do not want to have any impact on the performance of the production system during a TDMS run, you can use a recent copy of the production system. You can create the copy by using the snapshot technology method or a full system copy.

For more information about the integration of snapshot technology with SAP TDMS, see the relevant How-To guide on SAP Support Portal at [support.sap.com/tdms](https://support.sap.com/tdms).

For more information about minimizing the impact on the production system during a TDMS run, see Minimizing Impact on the Sender System When Selecting Data in the Operations Guide for SAP TDMS 4.0 on SAP Support Portal at [support.sap.com/insguides](https://support.sap.com/insguides).

## Receiver System

The target system in the SAP TDMS data migration process.

Prerequisites:

You have ensured the following settings:

- The receiver system is on the same release as that of the sender system.

- The repository objects are identical to those in the sender system.

## The TDMS Server

The TDMS Server includes the following:

### Control System

All TDMS-specific settings and Customizing are stored in the control system. The control system triggers the TDMS activities in the process tree.

**Central System:** The backend processing for data migration takes place in the central system.

### Setting Up the Control/Central System

The table below describes which systems can be used as the central or control system.

System	Can Be Used as the Control/Central System?	Remarks
Sender System	Yes	
Receiver System	No	The receiver system data must be refreshed periodically, but the TDMS historical data must be stored permanently on the control system.
Central System	Yes	
SAP Solution Manager	Yes	

### Recommendation

We recommend that you implement the control system on a server separate from the sender system or the receiver system. The separation ensures enhanced performance and data security.

## 2.4.3 TDMS System Requirements

SAP TDMS 4.0 is available for the SAP system releases listed in this section.

### For the Control System

You have installed SAP Basis Release 700



## For the Sender System, Receiver System, and the Central System

Depending on the SAP application for which you are running SAP TDMS, you have installed the appropriate Release. For more information, see the table in section 2.2 of this guide.

## For All Systems in the SAP TDMS System Landscape

You have installed the following Add-Ons along with the latest support packs to run SAP TDMS:

DMIS 2011

DMIS\_CNT 2011



### Note

The TDMS Add-ons, DMIS 2011 and DMIS\_CNT 2011 do not impact the existing functions when you install them in the production system.

## To Enable Communication Between Systems

You have configured the RFC connections between all participating systems.

For more information, see the Operations Guide at <http://support.sap.com/tdms>.

## 2.5 First-Time Use of SAP TDMS: Some Important Considerations

We recommend starting with a small implementation project for SAP TDMS to become familiar with the TDMS software before using TDMS to create non-production clients in your business operations. The duration of such an implementation project is customer-specific and depends on the technical preconditions and project requirements.

Typically, such a project involves the following steps:

1. Draw up a concept for the usage of TDMS.
2. Create a test system landscape: (sender system, central system, and receiver system) and check whether the hardware enhancements are necessary.
3. Determine the TDMS usage scenario and the migration parameters such as the data slice date.
4. Determine the refresh cycles (monthly, quarterly, and so on).
5. Install SAP TDMS on each of the participating systems.
6. Carry out a technical TDMS run (dry run) to become familiar with the software and with the procedure of testing the results. For this purpose, you can use a non-production system as the sender system.
7. If you use the time-based usage scenario, start with a small time frame, for example one month, and then increase the time frame successively depending on the results of the transfer.
8. If required, carry out application tests to determine whether the data extract meets the requirements of the tester.
9. Evaluate the technical run and derive the necessary measures for an optimal use of SAP TDMS.
10. Finally, carry out a TDMS 'productive' run to create a client for use in a non-production system and where the production system acts as the sender system.

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## ➔ Recommendation

After the first technical (dry) run, estimate the data transfer volume for your biggest applications. Usually, large tables reside in CO-PA, SD, FI, and in other applications for which TDMS header programs are available.

Depending on the distribution of application data, you can parameterize the programs to fill TDMS header tables to avoid storage problems during transfer.

## 2.6 As-Is Analysis of the Current Setup of the Non-Production System

In this section, you can find a suggested roadmap for proceeding with an SAP TDMS implementation in your organization.

Analyze the process of test data creation in your various systems and the types of data you require in the test system.

Test data can be created using one of the following methods:

- Developers create unit test data in development systems. These systems typically do not contain production-like data.
- Test systems are created as recent copies of production systems, usually with the help of a full system copy or a client copy.

Analyze the types of data you require in the test system.

Test data planning and management involves drawing up a concept about which data from the production system is really needed and where it is needed. A full copy of productive data may not serve the business purpose.

Test planning can include the creation of a representative set of "production-like" data. Test planning can also include a representative set of erroneous test data, for example when you want to test a function designed to avoid errors.

Analyze the existing landscape.

As a next step, we recommend that you analyze your system landscape and identify where you want to implement SAP TDMS.

The following questions might guide your analysis:

1. What kinds of systems do you use? For example, do you use quality assurance and test systems? Do you run SAP ERP HCM on a separate installation? Are the systems linked using ALE?
2. Are the systems in your landscape on the same transport path?
3. What kind of refresh mode, such as client copy or system copy, do you currently use for your systems?
4. How often do you refresh your systems?
5. What is your main aim for using SAP TDMS?

## 2.7 To-Be Situation with SAP TDMS

Based on the analysis outlined in the previous section for your test data creation and the evaluation of your KPIs, you can determine your individual "to-be" situation and define the usage scenario for SAP TDMS.

Here are some examples of typical landscapes:

### Scenario A: Simple System Landscape

In a simple system landscape, you can use either the quality assurance system or the development system of the receiver system.

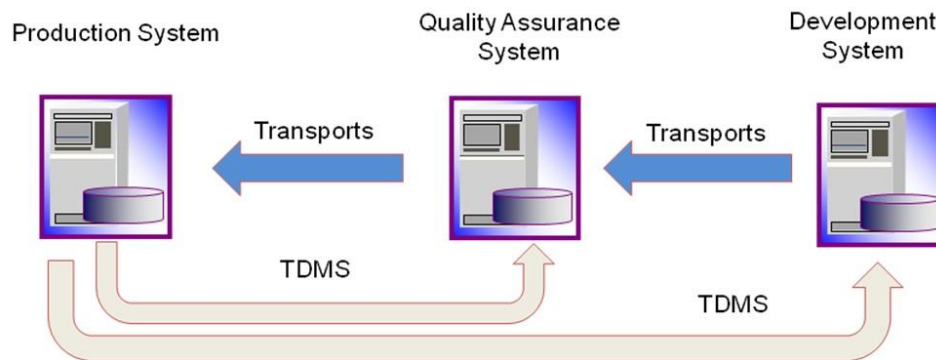


Figure 2 A Simple System Landscape

### Scenario B: More Complex System Landscapes

In more complex system landscapes, a master system can serve as a source for multiple TDMS runs involving the training system, quality assurance system, or development system. The master system can be created using snapshot technology, system copy, or a system restore from the production system.

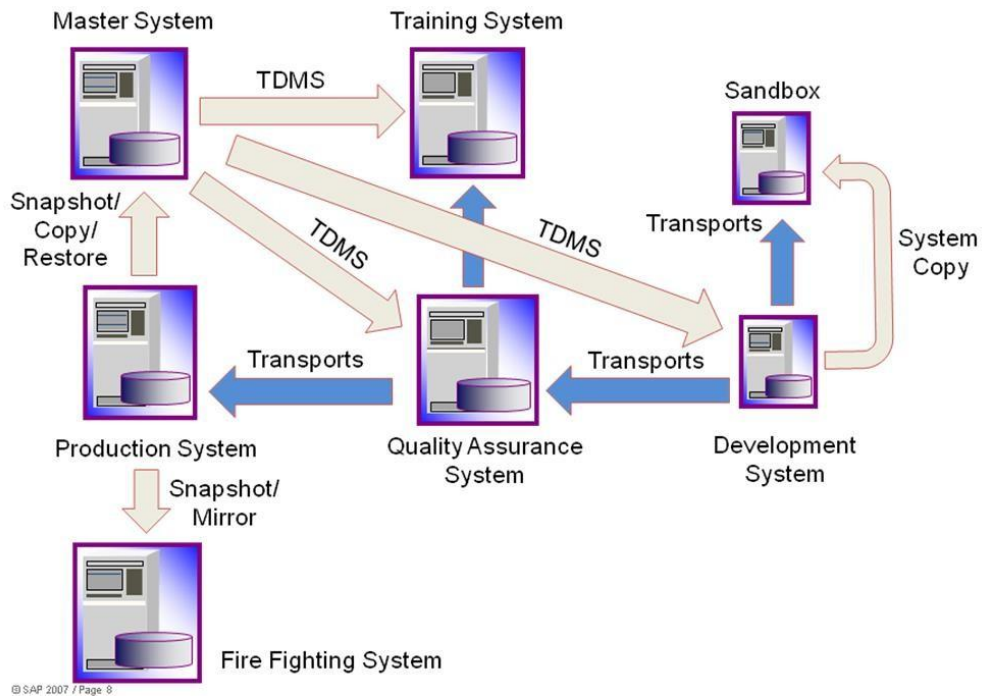


Figure 3: A Complex System Landscape

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## 3 Usage Scenarios for SAP TDMS

SAP TDMS 4.0 is available with a new Web-based UI for the work center, which captures your migration requirements and provides you with the appropriate migration solutions.

**Migration Requirement:** The customer's business requirement for data migration.

**Migration Solution:** The application-specific solution for a particular migration requirement.

**Portfolio:** A collection of portfolio items. Each portfolio item is a collection of logically grouped migration requirements.

**Project Template:** Allows you to define the migration requirements and the corresponding parameters to be used in a migration project or across several migration projects.

**Project:** Contains all information pertinent to an instance of data migration in SAP TDMS.

For more information, see section 4: Solution-Wide Topics.

### 3.1 Time-Based Reduction

#### Overview

You want to slice the data in the production system based on time and migrate the relevant data to the non-production system.

In addition, you want to ensure that the data migration is carried out consistently across all functional areas and organizational units.

The following migration solutions are available for this migration requirement:

- Time-Based Reduction for SAP ERP
- Time-Based Reduction for SAP CRM
- Time-Based Reduction for SAP SRM
- Time-Based Reduction for SAP SCM
- Time-Based Reduction for SAP NetWeaver BW
- Time-Based Reduction for SAP Oil & Gas (Downstream)

#### Selecting an Appropriate Data Slice Date

If you select a very recent data slice date, your data in the non-production system may not be sufficiently representative.

If you select a data slice date too far in the past, you may transfer too large a volume of data, which may not be entirely relevant to your non-production system. Besides, some of the relevant data may already be archived.

Your archiving strategy can provide you with clues to selecting the appropriate data slice date.

#### Note

Data reduction is available for SAP DIMP, SAP AFS, and SAP Healthcare data depending on the industry solution active in the SAP ERP system.

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## Transfer Technologies Available

- RFC-Based Transfer
- File-Based Transfer

## 3.2 Company Code and Time-Based Reduction

### Overview

You want to slice the data in the production system based on time and company code and migrate the relevant data to the non-production system.

In addition, you want to ensure that the data migration is carried out consistently across all functional areas and organizational units.

The Company Code and Time-Based Reduction for SAP ERP migration solution is available for this migration requirement.

### Note

If the Company Code field is blank in an SAP Application table in the sender system, SAP TDMS does not select data related to the company code for transfer.

## 3.3 Transfer of Master Data and Customizing Data

### Overview

You want to transfer master data and client-specific Customizing data from the production system to the non-production system.

In addition, you want to ensure that the data migration is carried out consistently across functional areas and organizational units.

The following migration solutions are available for the migration requirement:

- Transfer of Master Data and Customizing for SAP ERP
- Transfer of Master Data and Customizing for SAP CRM
- Transfer of Master Data and Customizing for SAP SRM

## 3.4 Full Transfer of Client-Specific Data

### Overview

You want to migrate all data belonging to a particular client in the production system to the non-production system.

In addition, you want to ensure that the data migration is carried out consistently across all functional areas and organizational units.

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You want to ensure that no post-transfer processing is required in the receiver system, so that settings like user authorizations are retained as they are in the receiver system.

The following migration solutions are available for this migration requirement:

- Full Transfer of Client-Specific Data for SAP ERP
- Time Full Transfer of Client-Specific Data for SAP CRM
- Full Transfer of Client-Specific Data for SAP SRM
- Full Transfer of Client-Specific Data for SAP SCM
- Full Transfer of Client-Specific Data for SAP GTS

## 3.5 Client-Specific Data Deletion

### Overview

You want to clear your receiver system of all existing client-specific data.

The Client-Specific Data Deletion for SAP ERP migration solution is available for this migration requirement.

## 3.6 Object-Based Reduction for Industries

### Overview

You want to slice data in the production system based on business objects such as business partners, contracts, or external accounts, and migrate the relevant data to the non-production system.

In addition, you want to ensure that the data migration is carried out consistently across all functional areas and organizational units.

The following migration solutions are available for this migration requirement:

- Object-Based Reduction for SAP Retail
- Object-Based Reduction for SAP Utilities
- Object-Based Reduction for SAP CRM for Utilities
- Object-Based Reduction for SAP Banking

#### Note

SAP TDMS is available for SAP Deposits Management and SAP Loans Management on Banking Services Platform.

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## 3.7 System Shell Creation

### Overview

You want to create a fresh test system or you want to create a lean test system using SAP TDMS, but your current test system does not have a repository identical to that of the production system.

The following migration solutions are available for this migration requirement:

- Shell Creation for SAP ERP
- Shell Creation for SAP CRM (includes information about SAP CRM for Utilities)
- Shell Creation for SAP SRM
- Shell Creation for SAP SCM
- Shell Creation for SAP NetWeaver BI

### Note

Currently, SAP TDMS 4.0 Shell Creation cannot be carried out with the Sybase ASE database.

## 3.8 Business Process Library

### Overview

You want to select data belonging to business objects in the production system and migrate the relevant data to the non-production system.

The business object you want to select belongs to the following categories:

- Custom Data
- Master Data
- Business Process Data
- Transaction Data
- Common Subobjects

The Business Process-Specific Transfer migration solution is available for this migration requirement.

## 3.9 Transfer of SAP ERP HCM Data

### Overview

You want to select SAP ERP HCM data in the production system based on business criteria and migrate the data to the non-production system.

You want to transfer the SAP ERP HCM data in the following contexts:

- You want to investigate issues with a particular employee's payroll data and hence you want to transfer the employee data to your test system.



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You want to conduct training or testing and hence you want to transfer organizational unit data and the corresponding master data to the appropriate system.

You want to refresh the relevant client in the receiver system with HCM-specific data from the sender system.

In addition, you want to ensure data privacy for the HCM data transferred to the receiver system.

The following migration solutions are available for the migration requirement:

Transfer of PA Data for SAP ERP HCM

Transfer of PD and PA Data for SAP ERP HCM

Transfer of PD and PA Data for SAP ERP HCM (Expert)

**i** Note

Solution for Stand-alone E-recruitment is not available with SAP TDMS ERP HCM.

## 3.10 Stand-Alone Scrambling

### Overview

You want to protect confidential and sensitive data to prevent the risk of exposure to unauthorized users. You also want to carry out this activity without any data transfer between systems in your system landscape.

The Stand-Alone Scrambling migration solution is available for this migration requirement:

## 3.11 Data Import through Files

### Overview

You want to import the data from a file to the receiver system using the file transfer protocol or a disk.

The prerequisite for this action is the completion of data export from the sender system to a file.

The following migration solutions are available for this requirement:

Data Import Through Files for SAP ERP

Data Import Through Files for SAP ERP HCM

Data Import Through Files for SAP ERP (Company Code Reduction)

Data Import Through Files for SAP Banking

Data Import Through Files for SAP Retail

Data Import Through Files for SAP SRM

Data Import Through Files for SAP Utilities

Data Import Through Files for SAP CRM

Data Import Through Files for SAP CRM for Utilities

Data Import Through Files for SAP SCM

Data Import Through Files for SAP NetWeaver BW

Data Import Through Files for SAP Oil & Gas (Downstream)

## ➔ Recommendation

We recommend that you use encryption to secure mobile storage against unauthorized usage.

Ensure that the use of mobile storage devices is in line with corporate regulations and guidelines and consult with the departments related to data protection in advance.

## 3.12 TDMS Fiori

Manage TDMS Execution is a transactional Fiori app to help you execute and monitor your active TDMS packages and troubleshoot frequent errors.

With this application, you can carry out the following actions across browsers and across devices:

View data about the run, including:

- The status of active packages and a summary of records and tables transferred

- Activity details, job logs, and subactivity logs for the current phase

- System landscape details for each package

Monitor the run by tracking:

- Transfer progress during the Data Transfer phase

- The status of RFC connections

- The progress and throughput of current migration objects

Execute the package

- Trigger the execution using the Process Execution Manager

- Change frequently used transfer settings

- Start and stop important activities

Troubleshoot errors

- Troubleshoot the most common errors occurring during a TDMS package execution

- Restart failed activities

- View relevant troubleshooters and rate their usefulness

## Further Information

The following documents provide more information about the migration solutions, migration requirements, and the work centers:

Content	Location
Help Portal	See <a href="http://help.sap.com/saptdm40">http://help.sap.com/saptdm40</a>
Operations Guide	For more information, see SAP Support Portal at <a href="http://support.sap.com/tdms">http://support.sap.com/tdms</a>

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Content	Location
TDMS Fiori	For more information, see SAP Support Portal at <a href="http://support.sap.com/tdms">http://support.sap.com/tdms</a>

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## 4 Solution-Wide Topics

### Landscape-Wide Approach from a Single Project

SAP Test data Migration Server 4.0 provides migration solutions for most of the Business Suite applications.

With this solution approach, a lean and consistent landscape can be created within a single project.

With the new project template concept, all similar migration solutions can be brought together.

The common parameters across applications need to be provided only once at the project parameters. You can specify anything specific to an application at the execution plan step level or at the package activity level.

The project can contain all similar migration solutions. The logical sequence provided helps you to execute the packages one after another.

### 4.1 Portfolios

The Portfolio work center consists of the following portfolio items:

- Application-Based Transfer

- System Shell Creation

- Business Process Library

- Stand-Alone Scrambling

- Client-Specific Data Deletion

Each portfolio item contains the migration solutions relevant to the item.

### 4.2 Project Templates

A project template facilitates the creation of a migration project for SAP TDMS.

A project template is a prerequisite for the creation of a migration project.

To create a project with the appropriate execution plan, you can use predefined SAP templates that you can adapt to the conditions in your project.

#### SAP Templates

SAP provides the following standard templates:

- Transfer of Master Data and Customizing: TDMS\_TEMPLATE\_TRANS\_MDC

- Time-Based Reduction: TDMS\_TEMPLATE\_TIME

- Full Transfer of Client-Specific Data: TDMS\_TEMPLATE\_FULLTRANS\_CLIENT

- Company Code and Time-Based Reduction: TDMS\_TEMPLATE\_TIME\_CC

- Client-Specific Data Deletion: TDMS\_TEMPLATE\_CLIENT\_DEL

- File Transfer of Client-Specific Data: TDMS\_TEMPLATE\_FILETRANS\_CLIENT

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Transfer of HCM Data: TDMS\_TEMPLATE\_HCM  
Transfer of Utilities Data: TDMS\_TEMPLATE\_UTILITIES  
Transfer of Banking Data: TDMS\_TEMPLATE\_BANKING  
Transfer of Retail Data: TDMS\_TEMPLATE\_RETAIL  
Transfer of Oil & Gas Data: TDMS\_TEMPLATE\_OIL\_DS  
System Shell Creation: TDMS\_TEMPLATE\_SHELL  
Stand-Alone Scrambling: TDMS\_TEMPLATE\_STANDALONE\_SCR  
Stand-Alone Conversion: TDMS\_TEMPLATE\_STANDALONE\_LOGSYS

## 4.3 Projects

A migration project consists of a set of steps to define and execute migration solutions required to refresh the data in the non-production landscape.

All migration solutions in a project must belong to the same portfolio item.

## 4.4 Landscape Definition Manager

Using the Landscape Definition Manager work center, you can define the complete landscape for a TDMS execution.

The landscape IDs defined in the Landscape Definition Manager can be referred by any migration solution across projects.

## 4.5 Migration Parameters

The values for certain reusable parameters can be set before a migration process execution. Choosing the parameters enables an automated process execution.

You can set migration parameters at different levels of your project.

**Project-Level Parameters:** Setting parameters at the project level enables the automatic assignment of the parameter values to all migration solutions included in the project.

**Execution Plan-Level Parameters:** Setting parameters at the migration solution level enables the automatic assignment of the parameter values to the relevant activities in the migration process tree. Any value you specify at this level overrides the value you set at the project level.

**Activity-Level Parameters:** If you do not set parameters at the project level or execution plan level, you can set them in a migration activity. Parameters you set at the activity level are used for the migration process execution. Any value you specify at this level overrides the value you set at a higher level.

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For more information, see the Automation Guide for SAP TDMS on SAP Support Portal at <https://support.sap.com/content/sap-root/solution-manager/integrated-tools/tdms/tdms40.html>.

## 4.6 Process Execution Manager

A TDMS run typically requires frequent monitoring and manual intervention. You can use the Process Execution Manager (PEM) to automate most of the migration processes and hence minimize intervention during the run.

The PEM consist of a plan, groups, and blocks. The PEM plan represents the process tree with a focus on executable activities. Non-executable activities are not included in the PEM plan calculation. SAP TDMS offers a PEM plan for every migration solution based on the sequence and interrelationships of activities.

Navigate to the *Process Execution Manager* tab page after creating the package to automate the process.

A PEM block can be dialog, parameter or batch, where

- Dialog blocks contain activities requiring user inputs

- Parameter blocks contain dialog activities with migration parameter values already defined at the project or execution plan levels

- Batch blocks contain activities that do not require manual interaction.

You can use a scheduling feature to define the start and restart actions.

For more information, see the Automation Guide for SAP TDMS on SAP Support Portal at <https://support.sap.com/content/sap-root/solution-manager/integrated-tools/tdms/tdms40.html>.

## 4.7 Data Scrambling

Data scrambling is a security measure designed to protect confidential and sensitive data from both internal and external threats by masking sensitive data to prevent the risk of exposing it to unauthorized users. It helps the loss or unauthorized access of sensitive data used in non-production systems.

### Recommendation

Since SAP TDMS transfers “productive” data to the non-production systems, we recommend that you scramble sensitive data to avoid unauthorized access.

The SAP TDMS solution for data scrambling allows you to perform scrambling in the following contexts:

- Stand-Alone Scrambling

- Scrambling in the Data Transfer Context

SAP TDMS provides ready-to-use scrambling objects for the following types of data:

- Vendor Number

- Customer Number

- Material Number

- Vendor Address

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Customer Address  
HCM Data  
CRM Data

 Note

If you want to use TDMS Scrambling for SAP CRM data, contact SAP Development Support before you start the project.

## 4.8 Business Process Library

The Business Process Library in SAP TDMS is a collection of business processes relevant to SAP applications. You use the Business Process-Specific Transfer migration solution to transfer data residing in business objects (and belonging to a business process) to the receiver system.

You can specify the particular business objects you want to transfer from the sender system.

In the BPL Modeler, you can carry out the following tasks:

- Define RFC settings
- View a list of all business objects
- View a list of tables as part of the selected business object
- View a list of subobjects as part of the selected business object
- View foreign key/link mappings
- View reduction criteria
- Copy a business object and modify it according to your needs
- Modify a business object
- Create a new business object

## 4.9 Analyses and Reports

The Analyses and Reports work center provides you with information about the following reports:

**System Parameter Details:** This report provides data about recommended system settings for a TDMS run. You can use the results of the analysis to plan for an optimal TDMS run.

**Transfer Performance:** This report provides information about the performance of a data transfer.

**Table and Field Comparison:** This report provides a comparison between the repository in the sender system and that in the receiver system. You can use the results of the analysis to decide on whether system shell creation is required.

## 4.10 E-Mail Notification Engine

You can receive e-mail notifications about the status of activities in your package. SAP TDMS 4.0 sends you the notifications using the Notification Engine.

### Prerequisites for Receiving E-Mail Notifications

You have entered user communication data in the user master data in transaction SU01.

### Activating the E-Mail Notification Engine

By default, SAP TDMS enables notifications for all users of a package or project.

You can manually set your own individual notification settings for a particular project or package. For more information, see Figure 9.

If you have chosen not to receive any notifications, you have to explicitly activate the service if you want to start receiving the notifications again.

#### Note

Settings that you make on a project level are transferred to the package level if you do not choose otherwise.

### Events for which you can receive e-mail notifications

Successful starts for activities

Execution results for activities, including successful completions, terminations, and completions with errors or warnings

### Channels used for notifications

E-mail

System messages

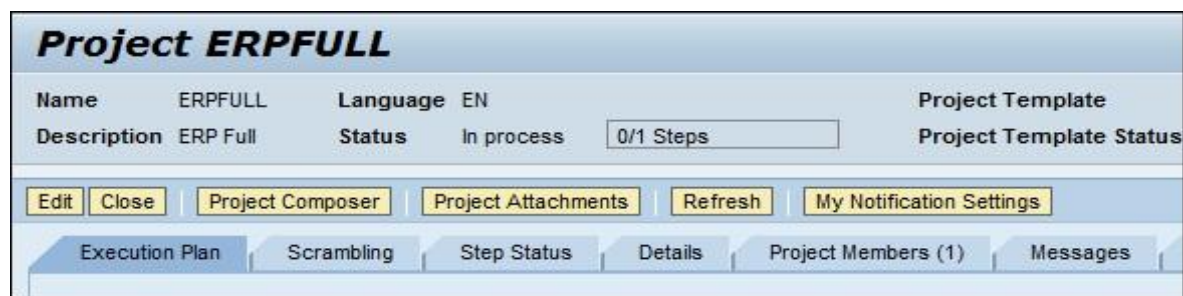


Figure 4: My Notification Settings at the Project Level



**My Notification Settings for Project ERPFULL**

You can view the notification settings that are defined for your user profile. In order to adjust your user profile settings, contact your system administrator.

**User Profile Settings**

E-Mail:

**Notification Settings**

Receive Notifications

Event	E-Mail	SAP Office Doc
Activity finished successfully	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Activity finished with warning	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Activity finished with errors	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Activity terminated	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Activity started successfully	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Save** **Cancel**

Figure 5: Activate/Deactivate Notifications

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## 5 References

### List of Documents

The following table lists all documents mentioned in this Master Guide.

Title	Where to Find
Solution Operations Guide for SAP TDMS 4.0	SAP Support Portal at <a href="https://support.sap.com/tdms">https://support.sap.com/tdms</a>
Security Guide for SAP TDMS	SAP Support Portal at <a href="https://support.sap.com/tdms">https://support.sap.com/tdms</a>
Upgrade Guide for SAP TDMS	SAP Support Portal at <a href="https://support.sap.com/tdms">https://support.sap.com/tdms</a>
Automation Guide for SAP TDMS	SAP Support Portal at <a href="https://support.sap.com/tdms">https://support.sap.com/tdms</a>

### List of SAP Notes

The following table lists all SAP Notes mentioned in this Master Guide.

SAP Note Number	Title	Description
<a href="#">1577441</a>	Installation of TDMS Software	Installation of TDMS Software
<a href="#">1577442</a>	Installation of TDMS Software	Installation of TDMS Software
<a href="#">1249737</a>	SAP TDMS and Code Pages	SAP TDMS and Code Pages
<a href="#">890797</a>	System Settings for SAP TDMS	Required and Recommended System Settings



[www.sap.com/contactsap](http://www.sap.com/contactsap)

[www.sap.com/contactsap](http://www.sap.com/contactsap)

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