

SAP® TEST DATA MIGRATION SERVER

SETTING UP TEST LANDSCAPES EFFICIENTLY, COST-EFFECTIVELY

To yield worthwhile results, nonproduction systems need up-to-date productive data supplied from production systems. The SAP® Test Data Migration Server software tackles this, extracting data from production systems quickly and cost-effectively to create and refresh test systems with a much lower data volume.

Companies need systems for testing, QA, development, training, and sandbox purposes. Yet, for these nonproduction systems to yield worthwhile results, they must be supplied up-to-date productive data replicated from production systems. If they are not, your testing, training, and new development systems may be less than effective. However, to fulfill this demanding condition, technical, logistical, and organizational hurdles must be cleared.

Many companies refresh data by creating a complete copy of the production system – the entire data repository, all customizing settings, and all client-dependent and client-independent data. This method, which devours infrastructure and maintenance resources, is inefficient because it replicates more data than your test clients require. To reduce effort and cost, some companies opt to copy their systems less frequently. That means they feed old productive data to their nonproduction systems, a costly compromise based on poor data quality.

An organizational hurdle in this picture has always been the fact that refreshing data for just one client in a multiclient system was never possible. If a single client was to be refreshed, all clients had to be refreshed. That required careful coordination within the company in order not to disrupt project work.

The Solution: SAP® Test Data Migration Server

There is a way to set up nonproduction systems quickly and cost-effectively based on reduced data volume. That

way is with the SAP® Test Data Migration Server software. With it, you can extract data from the production system to create your test landscapes with a significantly lower volume of data. What's more, it lets you refresh single clients in a multiclient system.

Since about 80% of the data used by typical SAP R/3® software (functionality now found in the SAP ERP application) is transaction data, SAP Test Data Migration Server focuses on reducing this data while retaining all of the master data and customizing data. This can reduce the data sets of your nonproduction system by 70% or more, yet extracts all the data required to keep business objects and processes there consistent.

Three Options for Reducing Data

SAP Test Data Migration Server can restrict the data to be migrated in several different ways. You can also specify any individual table that you want to be transferred or excluded from the migration, even customer-specific tables.

To work with optimum efficiency, you can create a system shell beforehand that contains only cross-client data and client-specific user and address data. The system shell can then be used to fill your nonproduction system environment with exactly the data you need.

Data Restricted to Master Data and Customizing Settings

This option copies just the master data and customizing settings. It's ideal for setting up training systems, because it reflects your own requirements. Since





transaction data is excluded from the transfer process, you have to create transaction data in the nonproduction system yourself.

Data Restricted to Specified Time Frame

This option restricts the data objects to be copied from the date you specify (the start date) to the present date – for example, from January 1 of the current year to the current day. The start date does not have to coincide with any of your year-end or month-end dates; however, you cannot specify a “from-to” range. The end date will always be the current date.

To ensure consistency of the data extracted, time-based data reduction does not strictly exclude all data outside the specified time frame. If a business process references information in objects created prior to the specified start date, such as sales documents or materials documents, the software transfers those objects as well. This ensures that processes transferred to the nonproduction system within the chosen time frame are complete and can be fully processed. Dependent objects are traced up to the fifth level in the document chain.

Data Restricted to Specified Organizational Structure

Data sets may be transferred based on organizational structure, such as company code. This allows you to create a very trim development environment with only the data relevant for testing new developments.

One-Time Setup, Unlimited Refreshing

To build a nonproduction system landscape, SAP Test Data Migration Server must be set up initially. At this time, all relevant client-dependent data is copied from the production system. To ensure that all client-independent data is available in the nonproduction system, you can use an existing system from your transport track; alternatively, a system copy or system shell may be created. The source system and nonproduction system must have the same table structure as defined in the ABAP™ programming language data dictionary. Once SAP Test Data Migration Server has been set up, you can refresh your data any number of times using the settings made in the initial setup.

All client-independent data is retained when the nonproduction landscape is refreshed – including transport requests, job scheduling, user administration, and authorization concepts. You will have to make changes to the client-independent data in the nonpro-

duction system manually after the refresh. For example, an employee may need authorization for all tasks in the test system, although only limited authorization was assigned in the production system. However, SAP Test Data Migration Server converts the logical system name automatically when data is transferred. Change documents are not transferred since this information is usually not relevant for testing.

Tips for Highest Performance

SAP Test Data Migration Server can be installed on any system – except on the nonproduction systems receiving the extracted data – that provides enough storage space and supports adequate performance. You can achieve higher performance if you install the server software on a system of its own.

To ensure data consistency, you should set up the nonproduction system landscape when system load is low and no data is being posted. You should also lock users out during this time to achieve full data consistency. The data can also be read from a copy of the productive system. For example, if your QA system contains the latest data, you can use it as a basis for migration.

Service Offerings

The System Landscape Optimization group, a group of experts from SAP Consulting and the SAP Custom Development organization, has two service offerings. The basic service offering implements the standard SAP Test Data Migration Server software. The expert service offering is tailored to your individual requirements.

Basic Service Offering: The Starter Package

The basic service offering implements and configures SAP Test Data Migration Server. The project starts with a one-day on-site workshop that focuses on your implementation requirements and target data volumes as well as on the technical features of the source system.

Next, the software is set up and configured on a test system by an SAP consultant, either on-site or via remote access. Once you have checked the consistency of the transferred data, the test system is refreshed. If the results are satisfactory, the test environment is set up in the final system landscape. All customizing settings for the test landscape are documented to help you set up additional nonproduction system landscapes with SAP Test Data Migration Server. The System Landscape Optimization group provides extensive know-how to help you develop the skills you need to use the software on your own. In the final review workshop, the SAP experts verify the server settings with you.

A consulting effort of 15 days is required to set up your nonproduction system landscape. The overall project duration depends on your individual project scope. Designated contacts from your company's system administration and maintenance personnel should be available to the group of experts. In addition, a number of employees from your departments will be required to test the data.

During the initial setup of SAP Test Data Migration Server, you will receive the following services as part of the basic service offering:

- Detailed consultation with your IT experts to decide which tables should be transferred and how: all records of a table or just those records created within a specific time frame, with explicit exclusion of entire tables possible
- Specification of up to 10 customer-specific tables to be included in the migration
- Optimized data transfer, with sequence, table type, and process settings taken into consideration

Expert Service Offering: The Customized Solution

The expert service offering is provided in the format of a one-day analysis workshop. During this time System Landscape Optimization group experts work with you to establish project scope, determine the project specifications for your nonproduction landscape, and identify the resources required.

Even for nonproduction systems, data security and anonymity must be guaranteed, because sensitive data may be migrated from production systems handling, for example, your financial accounting, human resources, or production and development operations. If your company has specific data protection requirements, the System Landscape Optimization group experts cover them in detail during the project planning phase. In this way, you can be sure that the results are tailored exactly to your company's requirements to fulfill the needs of your industry or business model.

If the results of the expert service offering meet with your approval, a detailed project plan is drawn up next to help you maintain your test landscape cost-effectively, flexibly, and efficiently.

Main Benefits of SAP Test Data Migration Server

SAP Test Data Migration Server offers you the following benefits:

- Reduced infrastructure and maintenance costs due to reduced volume of data in your test landscape
- Improved quality of your development and training activities because business-relevant and up-to-date test data is available at any time
- Flexibility to work on multiple IT projects in parallel by being able to refresh single clients in development, test, and training environments
- Reduced costs for development and training activities while improving data quality
- Protection of sensitive data in non-production systems through data scrambling
- Effective simulations of new business situations in your test environment using up-to-date data to inform your critical business decisions before you make them

System Landscape Optimization Group

If you are interested in our service offerings for SAP Test Data Migration Server and would like more information, contact us at slo.consulting@sap.com. We will gladly send you a quote. Or visit us at www.service.sap.com/slo. For further technical information on SAP Test Data Migration Server, please ask for the *SAP Test Data Migration Server* technical brief.

Summary

To yield worthwhile results, nonproduction systems need up-to-date productive data supplied from production systems. There is now a way to set up nonproduction systems quickly and cost-effectively based on reduced data volume – using the SAP® Test Data Migration Server software. It can create test landscapes based on a significantly lower volume of data that it extracts from the production system. It also lets you refresh single clients in a multiclient system.

Business Challenges

- Set up nonproduction systems with a reduced amount of data
- Refresh nonproduction systems quickly
- Refresh single clients within a multiclient system

Key Features

- **Project specification** – Have experts focus on your individual implementation scenario, your required target data volumes, and the technical features of your source system
- **Setup and configuration of SAP Test Data Migration Server** – Let SAP consultants set up and configure SAP Test Data Migration Server and transfer production data to your test system either on-site or remotely
- **Documentation of settings** – Get full documentation of all customizing settings for your test landscapes so you can set up additional nonproduction systems easily

Business Benefits

- **Reduced costs** – Reduce your infrastructure and maintenance costs by reducing the volume of data in your test landscape
- **Better development and test results** – Improve the quality of your development and training activities by providing business-relevant and up-to-date test data at any time
- **Greater efficiency** – Boost the efficiency of your development projects by lowering data volume and, consequently, the effort involved in managing your test landscape
- **Flexibility to maintain nonproduction clients individually** – Work on multiple IT projects in parallel by selectively refreshing single clients in development, test, and QA systems

For More Information

If you are interested in our service offerings for SAP Test Data Migration Server and would like more information, contact us at slo.consulting@sap.com. We will gladly send you a quote. Or visit us at www.service.sap.com/slo.

50 087 902 (09/10) Printed in USA.

©2009 by SAP AG.

All rights reserved. SAP, R/3, SAP NetWeaver, Duet, PartnerEdge, ByDesign, SAP Business ByDesign, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and other countries.

Business Objects and the Business Objects logo, BusinessObjects, Crystal Reports, Crystal Decisions, Web Intelligence, Xcelsius, and other Business Objects products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Business Objects S.A. in the United States and in other countries. Business Objects is an SAP company.

All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

These materials are subject to change without notice. These materials are provided by SAP AG and its affiliated companies ("SAP Group") for informational purposes only, without representation or warranty of any kind, and SAP Group shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP Group products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.