

Test Data Manager

Key Benefits

- **Improve app quality:** Using the right data for testing considerably reduces defect creation.
- **Deliver data faster:** With Test Data Manager, testers test faster because they no longer wait for data.
- **Improve testing efficiency:** Eliminating data constraints, and reducing the time and resources needed to provision data, makes testing more efficient.
- **Reduce test costs:** Minimizing the number of copies needed for test data reduces infrastructure costs.

Key Features

- **Data discovery and profiling:** Find personally identifiable information (PII); demonstrate compliance for GDPR and other regulations.
- **Find and reserve:** Use dynamic self-service forms to interactively view, analyze and reserve test data.
- **Synthetic data:** Create rich synthetic data from scratch, reducing the need to use production data.
- **Virtual test data:** Create personal copies of test data virtually, instantly, and with no storage overhead.
- **Data masking and subsetting:** Secure millions of rows of data in minutes using automated data profiling and clone subsets of data.
- **Coverage analysis:** Measure exactly how much of a system your data can test.
- **Test data allocation:** Automate test data discovery to request and receive exact data sets, linked to test cases.

Overview

The quality of your applications depends on thorough, continuous testing. Timely testing depends on having the right data, at the right time, and in the right format. As today's testing and development teams move towards an agile approach, the time available for testing is compressed. Testing is often out of step with the demands of software development.

Test Data Manager helps organizations automate test data management, deliver test data faster, create synthetic test data from scratch, shorten test cycles from weeks to days, and improve compliance.

Business Challenges

Organizations are under constant pressure to deliver feature-rich applications faster and with higher quality. Many testing teams still take a manual approach to acquiring and building test data. Consider the following limitations when using only production data for testing:

- **Poor test coverage:** Production data is massive and costly to maintain when multiple copies are deployed. Production data typically represents only 10% to 20% of the test data needed. Production data is often lacking data that would represent negative outliers or what-if scenarios that are necessary for effective testing. Insufficient test coverage often results in costly defects being discovered later in the software development lifecycle.
- **Persistent testing bottlenecks:** Waiting for test data costs developers and testers valuable time when they are trying to achieve their sprint deadlines. Locating and copying production data or creating data by hand is slow and error-prone.
- **Data privacy issues:** Production data contains sensitive, personal information. Creating multiple copies of production data, and storing it across many locations, on multiple devices, increases the likelihood of a serious data breach. New compliance regulations, such as the EU's General Data Protection Regulation (GDPR), have further raised the bar to protect production data.

Solutions Overview

Using sophisticated visualization and coverage analysis, Test Data Manager helps organizations identify and model the exact data needed for rigorous testing. Test Data Manager can find and reserve test data, create synthetic test data from scratch, shorten test cycles from weeks to days, and improve compliance.

Solutions Overview (cont.)

Test data can be linked directly to test cases and stored as reusable assets in a test data warehouse. As data is provisioned, it can be cloned (virtually or traditionally) and fully versioned, allowing teams to work in parallel. Testers are no longer delayed by trying to create their own data. Using a web-based portal, testers can request and receive test data in minutes.

Test Data Manager features other powerful functionality. High performance data masking quickly modifies millions of rows of data, automated data discovery and profiling increases data privacy and compliance, and test data warehousing stores data pools as reusable assets in a central repository.

Critical Differentiators

Test Data Manager is different from other solutions in the following ways:

- **Test oriented:** Test Data Manager links your data to specific test cases and automatically synchs up data with changing test requirements.
- **Built for reusability:** The model-based test data generation approach enables reuse of testing assets, while new test data can be built upon existing components. Test data is stored centrally as reusable assets, along with previously defined rules and data models.
- **Fully automated:** Who needs another extract, transform, load (ETL) tool that runs off scripting? Manual tasks associated with data masking, data generation, cloning, and provisioning are automated by Test Data Manager for increased efficiency.
- **Parallel work streams:** Test Data Manager brings version control of the data itself, data inheritance, test matching, and data cloning. Testers can work on multiple releases in parallel without disrupting each other's data.
- **Sophisticated coverage analysis:** Test Data Manager coverage analysis and data visualization unlock exactly what data attributes exist, how they relate to each other, and what new data you need to create for testing.

- **Versatile data generation:** Test Data Manager provides a comprehensive list of combinable SQL functions, seed tables, and default and system variables. Use it to create data for all major relational database management systems (RDBMS), as well as complex file structures and types.

Related Products and Solutions

Test Data Manager is part of a comprehensive portfolio of solutions, including the following products and capabilities:

- **Agile Requirements Designer** is a complete solution for requirements definition, test case design, and automation, which defines a model of every test case. Test Data Manager can provide the test data needed for each test case.
- **Service Virtualization** automatically creates the virtual services necessary for the end-to-end development and testing of applications, eliminating system constraints. Test Data Manager can generate the data needed for request and response pairs.

Customer Success

The following examples show how customers achieve their goals using Test Data Manager:

- **A multinational bank** improved test data quality and efficiency by 60% within three months.
- **A global airline** reduced the amount of time it took to locate the right data by 95%.
- **A large insurance company** masked over 750 million rows of data in eight minutes.
- **A government agency** realized a £1,000,000 per year return on investment when it adopted only the database compare feature.
- **A healthcare company** cut data creation time from 20 hours per transaction to two to three hours.