If you are implementing or upgrading large systems or packaged applications, you have undoubtedly encountered testing challenges. To deliver business-critical applications on time and with high quality, you need a reliable and repeatable testing process to accelerate time-to-market and reduce costs. These systems and applications also tend to be highly data-driven and require large amounts of data to test effectively. Data-driven testing challenges can cause spiraling costs and pose a significant risk to the quality of the resulting application. It is simply not cost-effective to clone large production databases for testing environments—the storage footprint quickly gets out of control.

The testing challenges cross multiple aspects from test planning to data preparation to data protection. Preparing data for testing is extremely labor intensive and can consume more than 50 percent of your overall testing time and resources. When test data is prepared manually, and when handling large amounts of data, human error becomes a significant risk. If data extraction needs to be repeated with each testing iteration, it can quickly become unmanageable without a structured, automated solution. Adding to the costs and considerations of testing highly data intensive solutions are industry regulations such as HIPAA, PCI DSS, PIPEDA, DDP, GLBA, Safe Harbor and corporate data governance standards that require the protection of sensitive data such as social security numbers, personal, financial, and healthcare information. Many of these concerns become even more challenging to address when testing is outsourced to a third party.

Key HP Test Data Management software features and benefits:

- **Reduces time required for extracting large amounts of distributed data needed for testing:** Implements rapid, policy-guided extraction of relevant subsets of test data derived from multiple, large data sources and delivers them to a single destination while maintaining referential integrity.
- **Accelerates application testing:** Streamlines the data preparation phase of the application lifecycle and provides a subset of realistic, but de-identified data for testing purposes.
- **Reduces storage requirements:** Reduces the footprint and cost of data storage for databases used in testing environments.
- **Reduces costs through shared data extraction rules:** Parameterizes the data extraction rules for ongoing reuse within different extraction activities.
- **Supports data privacy and security:** Masks sensitive data with built-in functions for commonly used data types (for example, social security numbers, phone numbers, and so on).  
- **Flexible meets unique data security needs:** Supports custom data-masking functions for any data type, enabling compliance with corporate data security policies.
- **Efficiently handles different data output types:** Generates the output data as either a flat file or a database, while maintaining the same structure and schema as the source database.
- **Complements the HP suite of testing tools:** Accelerates application testing for both manual and automated tests.
HP Test Data Management software—manage your test data to effectively test on time and on budget

HP Test Data Management software solves the formidable challenge of extracting a business and technically relevant subset of data from production data sources to create a representative, production-like test environment that enables you to effectively test the end-to-end business process using realistic, but de-identified data.

Building the data model and subset rules

The software’s rich, graphical user interface (GUI) empowers the Technical Champion responsible for managing the testing environment (for example, the environment or lab management team, or the Database Administrator [DBA]) with a visual environment to simplify key tasks including building the data model that aligns with the schema of the source database, visualizing the links and dependencies between the tables, and maintaining the data model in the face of ongoing change.

When extracting data, HP Test Data Management software preserves the information characteristics and retains the data’s referential integrity. Subset rules can also be placed on any column in the data model using the Designer. The rules can be parameterized to allow you to select, at run-time, which subset rules to execute in order to extract the specific data needed for testing.

The software supports SQL and Oracle databases and applications such as Oracle E-Business Suite, Siebel, and PeopleSoft.

Masking the data

HP Test Data Management software automatically masks sensitive data based on pre-built or custom functions to comply with privacy regulations and data governance policies. The results are output to either a flat file, usable by any testing tool, or a database that can be provisioned into the test lab for use by the application-under-test and corresponding testing teams.

HP Test Data Management accelerates application testing

Once the data model, subset, and masking rules have been defined, QA Engineers can execute HP Test Data Management software to extract data on demand to accelerate the test data preparation phase of the software lifecycle.

HP Test Data Management software complements the HP suite of testing tools including HP Quality Center software, HP QuickTest Professional software, HP Service Test software, and HP LoadRunner software to accelerate application testing for both manual and automated tests. HP Test Data Management software streamlines the data preparation phase of the application lifecycle and provides both developers and QA teams a subset of realistic, but de-identified data to increase the quality of application testing while reducing the storage footprint of the testing environment.
Figure 2: Pre-configured and custom data masking functions are supported by HP Test Data Management software

HP Quality Center
HP Quality Center software is an enterprise quality management platform that combines requirement, test, and defect management into a single, globally accessible Web-based application with traceability across the quality lifecycle. It is used by QA teams, developers, and business analysts to manage and verify the quality of technology and application projects and environments. Stakeholders can manage the release process and make more informed release decisions through defect prevention, proper quality planning, risk analysis, testing, issue tracking, and real-time visibility into project status and progress.

HP QuickTest Professional
HP QuickTest Professional software is a complete, advanced automated testing solution for building GUI-based functional and regression test suites to reduce the risk of application failure. With its innovative keyword-driven approach to structured automation, you can use natural language to build tests that verify user interactions and enable business processes to work as designed.

HP Service Test
HP Service Test software is a service oriented architecture (SOA) testing solution for non-GUI-based and service level elements that simplifies and accelerates the automated functional testing of SOA services. It reduces the time required to test SOA services and helps ensure that these services meet your business requirements prior to deployment. It enables your organization to simplify your Web services testing processes and reduce the need for scripting by automating capabilities.

HP LoadRunner
HP LoadRunner software helps prevent costly application performance problems in production by detecting bottlenecks before a new system or upgrade is deployed. This software enables you to measure end-to-end performance, diagnose application and system bottlenecks, and tune for better performance—all from a single point of control. The integrated load test, performance test, and application stress test features help you reduce the costs and time required to test and deploy new applications and systems into your production environment.
HP Software Professional Services

HP Software Professional Services provides a complete set of transformational solution consulting services, including process and BTO Software implementation to deliver technology transformation across the global enterprise. They also deliver packaged HP Quality Center and HP Performance Center software implementation services for rapid implementation, education services to increase software adoption, and solution management services to support, maintain, and enhance your BTO Solution over the long term.

Complements the suite of testing tools from HP that accelerate application testing for both manual and automated tests.

To understand how HP Test Data Management Software helps you reduce delays and costs associated with data-driven testing, visit: www.hp.com/go/tdm

For an overview of HP Software Services, visit www.managementsoftware.hp.com/service

To access technical interactive support, visit Software Support Online at www.hp.com/managementsoftware/services

To learn more about HP Software Customer Connection, a one-stop information and learning portal for software products and services, visit www.hp.com/go/swcustomerconnection

© Copyright 2010 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates.

4AA0-6349ENW, Created June 2010