



Test Data Management Services

Businesses are transforming the way they design, develop, and test their applications and services. Competitive pressures both internally and externally are forcing teams to build software better, cheaper, and faster. To meet these challenges, traditional models of development are giving way to more lean and iterative approaches; however, one key component that often gets overlooked is test data management (TDM). Too often, software development projects struggle with not having the right data to test, or not having the proper depth and variety of test data needed to validate crucial business scenarios. Performing development faster does not work without being able to quickly source the right test data. These inefficiencies come at a huge cost, with some studies suggesting that test data related issues are consuming over 30% of testing time. As organizations evolve by bringing development and release management closer together, the need to properly manage test data and increase development and operational efficiencies has never been more critical.

Despite the many improvements that have been made in the quality assurance arena, we continue to see testing projects falling behind schedule, failing on quality, and exceeding budget because of how test data is managed across the development cycle.

Smaller organizations tend to get their arms around TDM without explicitly treating it as a separate discipline. Their testers generally know what is needed, know how to get it, and are able to coordinate the needs, wants, and constraints. The more an organization grows and matures its software development practices, the greater the need becomes for treating TDM as its own discipline. It is not sustainable to handle TDM as an informal activity when you have multiple applications spanning different domains, programs of high risk and high complexity, and teams distributed geographically, each with their own constraints and priorities. It is even more difficult when companies need to face data privacy concerns,

regulatory needs, HIPAA, etc. In these situations, an enterprise-level TDM program is critical to maintaining quality standards while complying with regulations. On the other hand, organizations may also have an enterprise-level TDM function that is overly bureaucratic, expensive, and ineffective.

SDLC Partners' Software Testing and Quality Assurance practice comprises nearly 100 professionals experienced in all aspects of software development lifecycle testing. Incorporating our knowledge, best practices and experts to help evolve TDM process ensures increased capability and maturity in three significant areas:

- **Strategy** – our team can help set a clear set of objectives on what test data will be used and for what purpose, and identifying the people, process, technology/test environments, and tools best used to get there.
- **Customized Tools** – we can help you better utilize purchased tools or develop tools to help you identify, prepare, generate, and set up test data to support your testing and quality goals while considering the specific challenges and subtleties of your domains.
- **Execution** – our quality assurance experts can function as your TDM program lead to guide your testing projects to run as efficiently as possible. We can also mentor your teams, or augment your existing program with expertise to advance your capability.

Strategy

Is a test data program incorporated into your quality goals and testing strategy? Have your teams considered how their project methodologies place a greater emphasis on data independence? Are you aware of how test data (or lack thereof) is affecting product quality, time to market, and ultimately customer satisfaction?

These are just a few of the questions you should be asking yourself before starting to perform testing. Our QA professionals have experience and training in identifying data coverage required for testing all key scenarios. By assessing your application areas, methodologies, tools, and organizational makeup; we can develop a test data management strategy that will complement your existing test strategy. Plan for the test data you need, align resources to secure the data, prepare your test environments, and leverage tools to speed up the process.

Customized Tools

A strategy is only the map to your success; you still need tools in this journey to increase efficiency by reducing manual effort with test data setup, provisioning, consumption and ongoing management. Naturally, the marketplace is flooded with commercial solutions that claim to address the problems related to test data management. In our experience, the solutions take either a micro/tactical approach (addressing only small, specific issues) or a macro/global approach (trying to solve all issues but not effective at the details). We have found that the ideal solution often lies somewhere in the middle – a balanced approach which leverages our seasoned technical expertise to utilize and/or develop tools based on your domain specifics and unique test data challenges.

By understanding your constraints (cost, time, and resources), and immersing ourselves in your domain, we can design custom solutions that best leverage tools to mechanize manual setup processes, automate repetitive tasks, de-identify sensitive data, or create synthetic environments that replicate live, production data. This will help you advance more quickly to meet your specific goals.

Execution

A sound strategy and tools are key components of TDM, but great execution makes the difference by adding value and ensuring the highest quality. One of the key reasons a TDM function fails is because teams feel they lose control over their testing due to not having the right test data at the right time. Testing teams get frustrated when they do not have test

strategy or data that supports their domain and specific needs, or they are forced to use tools that do not take application complexity or domain-specific needs into account. The most effective organizations align their unique needs in each testing phase, with the strategy and tools to meet those needs. Our experts help guide you to build a TDM function that is agile and responsive. If you have a TDM function already in place, SDLC can validate your best practices, or serve as your TDM coordinators to provide the governance, coordination, institutional domain expertise, and ultimately organize the test data for your testing needs. The difference between efficiency and bureaucracy is a clear and specific plan combined with the right tools, and having the right resources to execute flawlessly on that plan.

While TDM is only one component of an overall quality practice, it is the key ingredient to testing faster, better and cheaper. When customizing an engagement for a new client, we can:

- Assess your program or project to help you determine the optimal test data management strategy given your objectives, resources, and constraints
- Recommend and/or build tool solutions to help increase efficiency in the test data setup and management process to unearth every bit of value you should gain
- Provide seasoned expertise or teams to extend your capability, who bring in-depth knowledge of TDM techniques, methods, practices, and tools

By providing a flexible team in both size and skill, we enable you to focus on the critical components of your organization: your customers and core competencies.

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