

## Digital Testing Approach

### A methodology for automating controls testing

As regulatory requirements and oversight from internal governance functions continue to create a growing need for organizations to perform controls and compliance testing, manual testing processes may pose significant risks for organizations. Regulations can be vast in scope and will differ by industry, potentially increasing the breadth, along with the cost, of what governance functions are required to monitor.

Internal audit, IT, operations risk, and other governance functions typically struggle with limited resources. In addition, they often lack a framework for automating testing. Pressure to reduce costs leaves them with

even fewer people to perform a wider array of tasks, further increasing the risk of failures due to manual errors. To compound matters, most organizations have an assortment of disparate technologies that prevent them from capturing a consolidated view of risks or reporting for noncompliance.

#### Why consider a Digital Testing Approach?

##### Reduce risk

Organizations that fail to identify and address noncompliance face potentially significant financial, compliance, client service, and reputational damage. Manually driven testing processes use only a small sampling from large data populations and are subject to sampling risk. This makes it difficult to identify anomalies in a population that may be meaningful to management.

In contrast, a Digital Testing Approach (DTA) methodology extracts, compiles, and

tests defined aspects of data from multiple systems across an organization. Through automation, it also enables 100 percent testing of the control and identification of anomalies. Having a full view of noncompliance items provides transparency and helps reduce a company's risk profile.

For example, one company that implemented automation noticed that most technology changes were implemented during its year-end month. Similar testing at other companies revealed that those organizations put a freeze on implementing changes during the year-end month to prevent creating problems immediately before issuing financials. This discovery led the company to rethink its process so that changes were made on a continuous basis throughout the year and minimal changes were made during the year-end month. Had the company used a traditional population sampling approach, this may have never been noticed, researched, and changed.

### Uncover insights

Companies that lack an integrated and consistent technology platform for risk assessments also lack a single view of risk and reporting for noncompliance. A DTA framework, however, provides a consolidated view of testing that can reveal trends and provide valuable insights to management. This, in turn, can elevate the internal testing effort from a cost center to a function that provides value.

Automation led one company to discover that 80 percent of its invoices were processed by only a few of the individuals assigned to this task. Hence, processing consumed the full 45-day window, creating backlog and resulting in a higher-than-normal number of manual errors. In addition to creating inefficiencies, this scenario created a greater risk of potential fraud.

### Increase efficiency

Manual testing processes are inefficient, prone to manual error, and time-consuming. Implementing automated testing creates efficiencies by reducing the time individuals spend gathering data, selecting what to test, and conducting the back and forth to obtain the detailed documentation. Automation also may reduce the risk of manual error and improve the quality and speed of testing.

After applying automation, one company now routinely refreshes data from separate systems and reconciles it. This reduces the time spent searching for and reconciling transactions. Instead, time is devoted to identifying breaks in the process, understanding why the breaks occurred, and determining whether a separate process should be established to avoid future breaks. When a pattern is identified, a separate process is established to address the pattern, ultimately requiring less time to identify and analyze individual breaks.

### Establish continuous monitoring

Manually comparing datasets from different systems is labor-intensive and onerous, and it makes it difficult for companies to establish a process for efficient and continuous monitoring. Automated testing using DTA enables continuous monitoring, provides oversight, and lays the groundwork to automate controls execution. DTA captures and stores control data in a single electronic format, reducing the need for manual review by automatically comparing data across an entire population and flagging exceptions. This enables better compliance and allows governance functions to quickly address exceptions, reducing resource and time commitment and freeing individuals to focus on more value-added tasks. Once a specific automated control test is established, the test itself can become a monitoring control on which the company can rely.

At one organization, making sure terminated personnel no longer had access to its systems required generating a list of terminations from one system and comparing it to a list of access-approved personnel from all other systems to identify those to be removed. When the company implemented DTA, the new process included an automatic extraction of information from all systems that was reconciled daily, flagging terminations and automatically sending notifications to the appropriate departments. The process now effectively and efficiently monitors terminations on a continuous basis, making it the new test for the control.

The future state of controls testing clearly lies in control modernization through automation and 100 percent testing. Using 100 percent testing reduces manual effort and establishes a blueprint for testing and executing controls. This will help reduce a company's risk profile, provide consistency and efficiency, and enable limited resources to be redeployed to handle more critical tasks, elevating control testers from a cost center to a business advisor.

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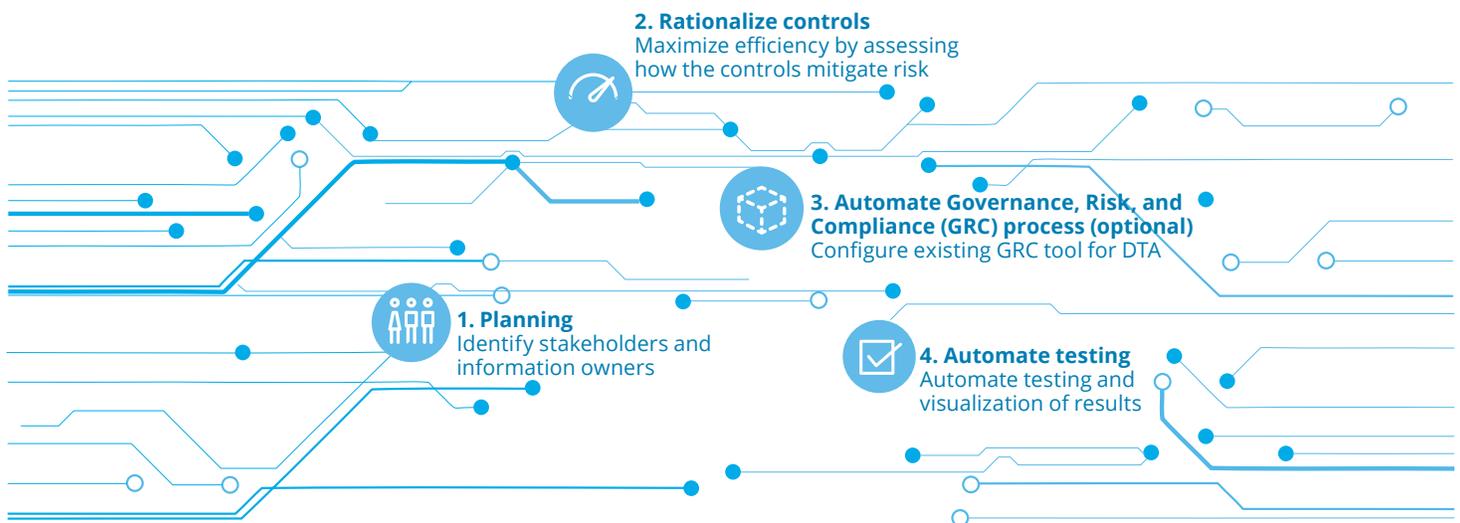


## How to establish a Digital Testing Approach

For companies that want to implement DTA, it's important to establish a project scope and align key stakeholders, so they understand the necessary changes that will be made to the current processes. Companies should start by identifying controls that fit the three criteria discussed in the questions below and, to the extent possible, use data in an electronic format. Dividing the population of control activities (automated or semi-automated controls versus manual controls) will help identify opportunities to reduce noncritical controls, as well as those that can be combined for testing purposes.

Developing and executing a proof of concept on a single process or set of controls that has the most electronic data available will aid in managing implementation and enabling success. Over time, as more data is accessed electronically, the scope of automation can be expanded across multiple processes.

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While none of these concepts is new, identifying the best set of controls for a proof of concept and applying the right tools and techniques can be a challenge. To determine which controls offer the best opportunity for a proof of concept, start by asking the following questions:

- Which cycle concerns me the most?
- Where is the most electronic data available?
- Which control could provide the greatest insights to create efficiency?

Once the answers to these questions are clear, proceed with a proof of concept and measure the resulting benefits. As testing requirements continue to become more onerous, automating controls testing using DTA can create a significant advantage for your organization, enabling better and faster testing and reducing risks and the costs associated with compliance.

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