

# Test Automation Services

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## What is Test Automation?

Many companies have implemented test automation as a fast and cost-effective alternative to manual testing. A test automation tool is software that performs the testing actions that would normally be performed by a person. This can be a very simple process - the tool copies the keystrokes of the tester and then repeats them. However, as an organisation's testing needs evolve, the process can become more complex.

## The Need for Test Automation

Having seen the cost-saving benefits of software testing, many companies are looking for ways to further optimise the testing process. Test automation provides powerful advantages, such as:

- **Faster tests**  
A test automation tool will be able to repeat the tests many times faster than a human could. This means that a testing cycle that might otherwise have taken weeks, can be done in a few hours.
- **Any time**  
The tests can be performed at times inconvenient to testers (e.g. overnight).
- **Less staff management**  
Management time is reduced because fewer people will be needed to perform all the tests.
- **Test recreation**  
The tests will always be performed in the same way making it easier to recreate the sequence of events that caused a fault.
- **Greater reliability**  
Testing will often be more reliable because the human element has been removed. Some testers may avoid testing portions of the software they believe are free from significant faults. This sometimes leads to the discovery of disastrous faults at a later stage.
- **Any stage of development**  
Once an automation script has been written, it can be run at any stage – even months later when the testers would require time to relearn the system in order to test it.

Considering these advantages, test automation provides a significant return on investment – provided that it is implemented correctly.

## Test Automation – Services Offered

Test and Data Services offers a variety of test automation services:

- **Test Automation Tool Selection**  
This involves evaluating the client's specific needs and comparing it against the tools available on the market. Test and Data Services also offers a training course guiding candidates on how to select and implement a software testing tool.
- **Test Automation Training**  
The implementation of a test automation tool can be complicated. Employees will need to go through a learning curve to fully utilise the tool and gain the maximum benefit from it.

There are two important areas that the test automation staff need to master:

- (i) **Scripting Methodology** – learning the scripting language  
Writing test automation scripts can be as simple as recording the keystrokes of the tester. However, it is possible to write scripts that take a variety of results and circumstances into account. These scripts are more complex but ensure that the system can properly respond to a wider variety of responses. As the program being tested evolves, it will require less maintenance.
- (ii) **Writing Automation Scripts** – learning to apply the correct methodology when writing scripts. This involves providing on-site assistance in applying the scripting languages.

Please feel free to call our training department for the latest information on course dates.

## Test Automation - Service Delivery

Test automation services can be supplied in the following ways:

### Consulting

Clients often experience difficulties that require the input of an experienced automation consultant. The company's test automation consultants are able to offer advice and guidance on an *ad hoc* basis.

### Resources

Test and Data Services offers test automation resources both as permanent and contracting placements. These resources vary considerably in experience and skills.

Test automation resources are also offered through Test and Data Services' **Software Testing Bureau** located at the company's premises. This convenient service enables the client to have software tested off their premises. This frees the client from the burden of managing contracting staff and providing other facilities such as workstations.

## Contact

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