



# The Test Automation Implementation Check List

## 59 Questions to Ask before you Implement your Software Test Automation solution

Implementing software test automation solutions is not easy. There are many pitfalls and lots of issues that need to be anticipated. This guide presents 59 questions that you should consider before you go any further with your

Software Test Automation project. Ten areas to consider before you go any further:

1. The Business Case
2. Implementation Planning
3. Integration
4. Change Management
5. Resources
6. Monitoring
7. Roles
8. Roll Out
9. Training
10. Maintenance

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# 1. The Business Case

The business case provides evidence that the software test automation project is a good investment for both the test team and the business.

- Has your business case been written such that the test team has thought through the project in a systematic, step-by-step manner?
- Does your business case explain to parties external to the test team why the project should be undertaken?
- Does your business case state the financial value of the project?
- Does your business case provide the framework for completing the project on time and on budget?
- Does the project have clearly defined business goals?

# 2. Implementation Planning

Your implementation plan should ensure that you have thought through all the tasks and likely issues associated with putting your software test automation framework into operation.

- Have you written the implementation plan and has everyone signed up to this plan?
- Are you running a small scale pilot and have the lessons learnt been incorporated in your implementation plan?
- Does your implementation plan cover communicating the benefits of using the tool(s)?
- Does your implementation plan take account of gaining user acceptance for the tool(s)?
- Does your plan take account of the on going costs covering the internal effort involved in implementing the tool(s)?
- Have you budgeted for support, training and building the infrastructure to support your test automation project?
- Have you anticipated the business process changes that will need to be implemented because of the tools implementation?
- Have you identified the exact business processes that will change as part of your automation tool strategy?
- Are you sure you've invested enough manpower and finance to make sure you get this right first time?
- Are you confident that the change management aspects (i.e. the getting people to use it) of this project have been planned for and budgeted for?
- Are you looking to simply automate an existing process without trying to fundamentally improve it?
- Or are you planning to embed new best practice as part of your roll out?
- Are you considering the importance of using the tool(s) consistently across the whole team/business?
- What administration resources are required to run the new tools effectively?
- Did you remember that "User acceptance testing" is just as important for those of us implementing automation tools as it is for other tools being implemented throughout the business?

## 3. Integration

In many cases your test automation tool may need to integrate with other tools or software used within your team.

- Have you analyzed the interface requirements to other systems that the automation tool may need to communicate with?
- Have you considered that you may need a separate tool for the generation of test data to support the test automation process?
- Have you looked at your data import and export requirements?

## 4. Change Management

Implementing a new test automation tool will always mean changes to existing processes and the way in which your test team works.

- Are you engaging key users early in the implementation process?
- Do you have the administrative resource to monitor that defined processes are being followed and that the quality of the tests being entered into the system is high?
- Have you addressed the executive sponsorship requirements to help ensure that resistance to usage is dealt with?
- Have you thought through an effective change management program to ensure that the system is enhanced over time and that it can be adapted to the changing needs of the business?

## 5. Resources

Nothing will be completed if you don't have the necessary resources to meet the requirements of the changes being planned.

- Will you have the resources, once implementation is complete, to manage and adapt the tool to business changes over time?
- Do you have the bandwidth in your resources to accommodate the drop in productivity that is usually associated with the early stages of a new test tools implementation?
- Have you allocated resources to key implementation activities such as testing, documentation and training?

## 6. Monitoring

To ensure the success of a test automation project it is essential that you monitor progress against the original business goals.

- What meaningful management information will be needed from day one?
- Will you be tracking the performance of your processes with well defined reports?
- Can you monitor user usage and uptake?
- How will you continue to finesse, improve, and enhance your system over time?
- Are you clear about the benefits of getting it right and measuring how right you are getting it (you can't manage what you can't measure)?

## 7. Roles and Responsibilities

Identifying roles within your software test automation project is an essential part of making sure everyone is clear about the responsibilities they have during the implementation.

- Have you nominated one person to act as the focal point for the introduction of the tool(s)?
- Does your nominated focal point for the tool have the skills to engender change throughout the team?
- Is the management team 100% behind your plan to implement test automation? (if not why not and how can you change this?)
- Have you identified someone who can act as the system administrator for the automation tool?
- Have you picked someone who can act as an expert on the tool and advise others on best practice?

## 8. Roll Out

Whilst planning and monitoring are essential to the implementation of any new test automation tool the critical phase has to be the roll out.

- What lessons did you learn from your small scale pilot and have you incorporated these lessons into your main roll out plan?
- Is everyone who will be affected by the new automation regime informed about the plans and changes coming?
- Have you demonstrated the benefits of the tool to those likely to be impacted by the change?
- Do people know what the success criteria for the project are?
- Have you considered how you'll communicate the progress being made during roll out?
- Have you understood from your pilot project how the roll out will change the existing testing processes and procedures?
- Have you planned for any negative effects of the roll out (e.g. an initial dip in productivity whilst people get used to using the tool)?
- Are your project managers aware of the issues associated with the roll out and how those issues might affect their project plans?
- Have you clearly defined the process that you will follow for selecting and automating tests?
- Have you defined a standard way of using the tool if you are rolling out across the organization?

## 9. Training

Effort spent training testers will always be rewarded with a more committed and capable team to support the implementation effort.

- Have you allowed for adequate internal and external training?
- Have you accounted for resource reductions whilst training takes place?
- Have you arranged for different types of training for different types of users?
- Have you accounted for ongoing training required as users become more familiar with the tools and as major tool updates are rolled out?
- Have you considered setting up an internal forum/bulletin board for users of the tool?
- Are you planning to approach your training by training a trainer and then using that internal trainer to train everyone else?
- Will you be providing training to new staff joining the organization in a timely manner?

## 10. Maintenance

There are a number of on going maintenance considerations to think about before you start your implementation plan.

- Have you factored maintenance aspects of managing your automated test scripts into your automation project.
- Have you assigned maintenance roles and responsibilities for your test automation project?
- As your process of using the new tool will probably be unique, have you anticipated the customization of the system to support changes in your business process?

## 11. And Finally

It might be worth considering the following carefully:

- Are you trying to do too much too soon?
- Have you considered phasing your test automation project?

## Conclusion

Implementing a software test automation solution is no easy task. By concentrating on the 10 key areas of implementation, and by considering the relevant questions posed above, you stand a far greater chance of success.

## What to do next

Traq Software specializes in providing software testing tools and test automation resources to the software testing industry. For help and support with your next software test automation project please contact us.