

12 Levers to Elevate Your Software Testing

Boost your quality and productivity with the right test team and tools



Software dominates automotive functions. Superior product and software quality are the key to high customer satisfaction, meeting safety requirements, and conquering tough timelines. The challenge is how to achieve maximum software quality without hiring an army of testers.

Synopsys has 20+ years of experience in automotive software and system development. Having engaged in numerous projects, we have seen the challenges in achieving high quality software. And, as a leader in chip design, we also know the importance of collaboration as complexity increases.

This checklist describes 12 levers you can pull to help you build the most effective test team, while making your testing process easier and more effective.

Focus On The Test Team

- 1 Promote Collaboration**
Create a space where testers, developers, and requirements engineers can regularly exchange information about your product under development.
- 2 Elevate your Testers Status**
Put testers on equal footing with other development roles. A tester makes an important contribution to the product, compensation and reputation should reflect that. Also, use attractive job titles for this essential role such as "test automator" or "test manager".
- 3 Assign your Testers Appealing Job Titles**
Use more attractive job titles for tester roles. The term "tester" is antiquated. Job titles such as "test automator" or "test manager" are more enticing to applicants.



Work Smarter, Not Harder

- 4 Give Testing the Good Name it Deserves**
Boost the reputation of Testing whenever you can. Spotlight selected testers and their valuable contributions without blaming development.
- 5 Refine your Process**
No one can describe requirements 100% accurately. Include your best testers in the requirements process, close gaps in iterative cycles, and create a good long-term process.
- 6 Invest in your Testers**
Train testers in the product to be developed: in methods, in tooling, and in the process (in this order). The better your testers are, the faster you will find bugs, reach the necessary quality, and deploy your software.

Choose The Right Tools

- 10 Invest in Tools that Work Well in the Long Run**
Use tools that let you scale and integrate with other tools. This will allow you to change or expand your tool landscape as conditions in product development change.
- 11 Use Tools that are Right for your Products**
Use test tools that enable testing most of the products in your company or department, allowing you to shift testers across products and save valuable tool training time.
- 12 Utilize Continuous Integration**
Build a Continuous Integration environment with automatic testing on every commit. The daily quality statements strengthen the overall development. There is currently no better and faster method for high product quality.

Focus on Testing Operations

- 7 Automation is Key**
Automate as much as possible. Every daily recurring work step should be automated. Always encourage using tools to take work off your hands and invest the time you gain in finding more errors, which is a task best handled by your top testers. They know best.
- 8 Eliminate Testing Prejudices**
Testing can be slow, but you can speed it up by breaking testing stereotypes. Keeping test maintenance under control will allow you to expand your test cases and test more in the long run.
- 9 Increase Productivity**
Use tools with single source of truth approaches to sustainably reduce unnecessary duplication of work. You will have many test cases. The less you must change, the more you can focus on new features.



Learn more about Reaching Excellence in Automotive Testing:

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