The Technology and Psychology
of Testing Your Code as You Develop It

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Abstract. Much of the contemporary research in the area of software testing and verification has solely focused on advances in technology and has to a large degree ignored the fact that success in software development has as much to do with technology, as it has with psychology. For development tools to be successful in practice, they must not "get in the way of developers," play to their unique psyche, and demonstrate a measurable return of the investment, i.e., time and effort spent. Similarly, their application must fit smoothly into the existing workflow and avoid "off-cycle" processes. In this talk, we will discuss a number of technological and psychological challenges of software testing during development and argue that supporting tools must align advanced technologies with sociological and organizational aspects in order to be successful. The talk will be based on our experience in the development and deployment of static analysis technology and utilize various practical examples to demonstrate the discussed concepts.