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testing experience

The Magazine for Professional Testers

Test Techniques in practice -

Do they help?
Why do we often test without them?

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He has written numerous papers and a number of books, including "The Testing Practitioner", "ISTQB Foundations of Software Testing" and "Testing according to TMap". Erik is also a former part-time senior lecturer at the Eindhoven University of Technology, the vice-president of the International Software Testing Qualifications Board and the vice chair of the TMMi Foundation.

Improving the testing process using the TMMi

by Erik van Veenendaal

The holiday period is always a good time to rethink issues. My column was this time written on the beautiful island of Bonaire in the Dutch Caribean. Facing the ocean and drinking a local beer, I'm trying to focus my mind on test process improvement ………

Different angles

Since the latests developments around the TMMi are a hot topic in the testing community, this is time to dedicate my column around "improving the testing process". Interesting to note that the first **ISTQB** expert level to be released (scheduled for early 2009) is called "Improving the testing process". Many organizations, whether using traditional development models or applying a type of agile development, are trying to improve their testing. To me there are various angles to work from. The one that seems to get most attention is process orientation. Before exploring this more in depth I would like to point out that other approaches such people-oriented ("just make sure your testers are top of the class and they will do a better job") or automation-oriented ("using a unit-test framework and/or automating the regression tests are proven ways to improve the effectiveness and efficiency of testing"). Don't just focus on processes, balance your improvement efforts!

The need for improving the testing process

Many organization use a reference model for test process improvement such as TPI (related to the Dutch testing standard TMap) or TMMi (related to the well-known process improvement model CMMI). Reasons for test process improvement are by now clear to most professional testers:

*   Larger and more complex systems are being developed
*   IT-systems that play a critical, and sometimes even safety critical, role in the society
*   Despite numerous attempts system and software development have not been able to produce low defect density systems
*   The amount of time spent on testing in large projects is at least 30%, but often it sums up to 40% or even 50% of the total project effort

In addition we are facing challenges due to short time-to-market requirements, strong competition, new technologies and of course everything around outsourcing. In short improving the testing process is not an option; it is mandatory for those who want to survive and be successful in business. I do not care so much whether one uses TPI or TMMi, both have their strong and weaker areas. More important is the right approach consisting of amongst others a clear mission or policy ("what is it that we are trying to achieve?"), a thorough improvement plan, a practical angle, management commitment and adequate resources.

New developments around the TMMi

Traditionally TPI has been strong in various industries, such a finance. Recently TMMi is gaining "market share" very rapidly. One of the main reasons being its strong relationship in every way to the CMMI. Achieving TMM level 2 almost automatically ensures compliance with the CMMI level 3 process areas Verification en Validation.

The TMMi Foundation has recently been established to co-ordinate, speed up and professionalize the developments around the TMMi. Most important areas of attention are:

1. Full development and maintenance of the TMMi model. (Currently the TMMi framework and level 2 definition are freely available at www.TMMiFoundation.org.)

2. The development of a formal certification scheme. Like with the CMMI it shall be possible to formally rate according to a predefined procedure the TMMi maturity level of an organization. Of course the requirements for such a scheme are highly related to the experiences with the CMMI.

3. The establishment of requirements for TMMi (lead) assessors; those that formally want to perform TMMi assessments. One needs to have enough knowledge and skills regarding testing, auditing, process improvement and of course TMMi.

4. The TMMi Foundation will in addition be a forum where persons and organizations can exchange experiences and run discussions regarding the TMMi and its usage in the real-life.

Results and uptake

All together a development that will enhance the testing profession. A test department can now achieve a formal, but most of all meaningful, quality mark. I'm aware of many companies that are involved in testoutsourcing that are studying how to become a formal TMMi accredited organization.

I already know organizations that during their road to higher testing maturity have been capable to decrease the test execution lead time and at the same increase their test effectiveness. They also support this claim by having concrete metrics!. Is this utopia? I don't think so with the right approach and attitude it can be done!!

Back to my beer and a refreshing dive in the ocean….

For queries or comments regarding ISTQB expert level, TMMi or the TMMi Foundation you can contact Erik van Veenendaal (eve@improveqs.nl)