

Testing – The Easy Way

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Testing - the easy way – with good requirements

Before beginning to write a program – let alone test it – you’ve got to have a clear idea of what the program is going to be about, which needs it will fulfill and just how it’s going to do so. That’s where requirements engineering comes in.

Requirement engineering encompasses obtaining the right stakeholders to tell you what the program will be doing and where the constraints concerning time, budget and the such lie. Furthermore helping these stakeholders to denote their knowledge – this may be done in natural language and/or using UML diagrams such as use cases, activity diagrams, class diagrams etc. This can be an arduous task at times, as the know-how these professional possess has often become so “natural” to them, they find it hard to externalize the same. Here the requirement engineer has a plethora of techniques to assist him in aiding the stakeholders. Once this body of knowledge has been denoted in a systematic fashion understandable to others – usually in a documentation of some sort, it needs to be expertly managed, as it tends to grow and change till ... well basically till the program is no longer used.

Now you might be thinking, that’s nice and all – but what has it got to do with me? I’m just a tester and I don’t really care if the program helps people farm carrots or deploy warheads, as long as it *runs smoothly*. Well, that might be true (although some people might have reservations about the warheads bit), but you’ve got to ask yourself: what do I test? Code. And what do I need to know about this code when testing it? Two things: 1. what it isn’t supposed to do and – although often a bit neglected – 2. what it *is* supposed to do and within which limits it should do so. Well, that’s exactly what well-written requirements will tell you. In fact, well-written requirements do more than that: they hand you the test cases on a silver platter.

Imagine a scenario where you don’t have to agonize wondering if you’ve covered every possible or impossible way a future user might misuse the program. Where you don’t have to rack your brain trying to come up with test cases which will ferret out every last little bug friendly programmers might have encoded for your personal delight. Where you’ll know just how many tests you’ll have to run beforehand. Sound good? Hot to get your hands on well-written requirements for your next project? Want to know how to turn them into test cases? Well, read on.

Because software development nowadays generally is a distributed venture, where you might have management located in the U.S., stakeholders with the technical knowledge situated in Germany and the programmers doing their coding in India; you need some way to guarantee that everybody will speak the same language when talking about the project. You need standards and you need to make sure that everybody’s up to par. That’s what the IREB (International Requirements Engineering Board) and the *Certified Requirements Engineer certificate* are all about.

The IREB (International Requirements Engineering Board) is an organization dedicated to collecting and managing best practices to do with requirements engineering and to standardize and promote information about the same. Amongst its board members are such renown professionals as Suzanne Robertson, Peter Hrushka, Klaus Pohl and its chairman Chris Rupp.

The IREB has created a certification called the *Certified Requirements Engineer*. This certificate is awarded after a three- or four-day seminar and a rigorous exam. To make sure everything is above board, the company offering the training and the certifier which provides and supervises the exam are always different companies - both licensed and overseen by the IREB. To guarantee that everybody’s covered, seminars and tests are offered as a paper based exam in Germany, Switzerland, Austria, Spain, the United States, Malaysia, India, Columbia, Israel and the Netherlands (with more countries up and coming very soon) and worldwide as a computer based exam. In every of this countries at least one certifier is mandated to provide the test. Partners like the International Software Quality Institute (is-qi.org) are the nominated partner for some of the countries, but are also allowed to provide tests in countries not assigned to an certifying partner. The processing partner for the worldwide computer based exams is the famous Pearson VUE (vue.com).

So if you’re keen on simplifying the testing procedures in your next project, if you want to make sure you’re handed a documentation that is worth the paper it’s printed on and makes your job easier rather

than more complicated or if you simply want to know how requirements turn into test cases, you might consider having a look at:

www.certified-re.de or www.certified-re.com

There you'll find more information about the IREB and licensed certifiers near you.



Chris Rupp is the founder of NLP-based requirements engineering. She has developed and published pattern-oriented approaches to development. She is the author of numerous international publications and continues to work as a coach and consultant. Mrs. Rupp is the founder and general manager of the SOPHIST GmbH, www.sophist.de. She is an expert in, among other things, natural linguistics and object-oriented methods, as well as organizational psychology and neuro-linguistic programming (NLP). Mrs. Rupp may be reached at Tel: +49 40 900 0 or via E-mail: chris.rupp@sophist.de.