



Chasing the Illusive Requirement(s)!

by Jerry E. Durant, Managing Director

No matter how long you are in this crazy business one will be confronted with one of those humbling experiences that reaffirm principals that you teach, and concepts you introduce. Recently I was asked by my colleague to assist in the task of providing expert information for a certification study guide that was being written. The project was behind (*lesson 1*) and the author was looking for guidance. Our relationship involved the author, the publisher and another party who was coordinating resources (*lesson 2*). Provided with key emails and some cryptic outlines we split up the assignment, and after brief discussions on general format/design (*lesson 3*) I commenced to write opinions and ideas on each of the topics. This was done in a point-by-point fashion, and followed the format that was agreed upon with my colleague (*lesson 4*). In two days time I was able to deliver on my assignment. The first section was delivered day one and the remainder submitted on the following day. These were reviewed/commented on by my colleague (internal QA), and then provide to the parties that were writing the guide. Two days passed between the first submission and the time their reply was received (*lesson 5*). The response was disappointing,

- Work product not presented in a format that can be used. Bullet points vs. prose format needed. Added detail required (*lesson 6*)

I had ignored all of the classic axioms that I had learned from such requirement scholars as Richard Bender, and Dr. David Gelperin (and I'm sure there are others so please excuse my omission from this list). In my description of this situation I listed lesson learned as they occurred.

Lesson 1

Project Behind Schedule – Never allow the state of a project to dictate doing the right job. This is especially true if you are not the culprit and you are simply providing a service to help those that created the situation.

Lesson 2

Multiple Masters – Unless you have very specific requirements ('goodness' must be established via some form of test or other facilitating mechanism) the chances of hitting the mark is unlikely. If there are more than one master it is even more unlikely to happen. The lesson that was learned is to do just a piece and get confirmation before completing everything. I allowed the project schedule to drive me to a completion that ultimately was not completed in meeting the needs of the multiple masters.

Lesson 3

Format and Design – The format and design was agreed upon and constructed exactly to what had been discussed. Unfortunately it didn't involve the user. Lesson learned is to always confirm back to the originator of the requirement to insure that we are meeting their needs. While we met ours and there was consistency, it was of little importance.



Lesson 4

Linear Delivery vs. Depth – Even though we delivered results that respond to each element of the provided specification we did not have a sense or measure to determine whether the depth of detail was adequate. In fact, there was a missing requirement in the specification, it wasn't defined or illustrated as to what they would like to see for each of the specification items. A broad reference was made to a similar guide and a comment that it was too detailed. This now begs the question of whether it was detailed for a reason and whether the new design, if delivered would produce an adequate level of quality for the audience it was intended for.

Lesson 5

Work Continues While Work Product is Reviewed – This is not at all uncommon but it's worth noting that if this is the first work product in a phase/task and confirmation of goodness, direction... has not been established, a word to the wise, stop and rest. This is healthy for it eliminates excess rework because you aren't redoing subsequent work products produced that fail to be acceptable. Again, time influenced the decisions that were made. It should also be pointed out that professional pride and long running experience allowed me to think I was beyond not doing it right the first time. Coincidence is not engineering and engineering mandates discipline. This can and will happen to anyone. Staying alert to specification/requirement faults will reduce the likelihood of these occurrences.

Lesson 6

Level of Detail Did Not Fulfill Expectations – This is the old "implied" requirement phenomena. Size does not equate to adequacy. In fact the size of the specification did little to facilitate a more precise understanding of the job to be performed. Since we had not used a test, as a means of further requirement refinement, and we didn't allow the initial work product to serve as a prototype for the initiative, we failed overall. The bottom line is that we failed to fulfill implied expectations. While we exceeded the delivery schedule, we didn't fulfill the need they were looking to have met. Therefore, we didn't truly meet the delivery expectation. By definition, meeting commitment means on time, within budget, and with the right product. The project failed as a result of not performing proper requirement specification vigilance.

Lesson 7

(not mentioned earlier) Use What You Learn – Personally I allowed my perceived view of my abilities to override prudent professional care. On average I have done quite well operating in this fashion. However, it's these humbling experiences that refresh us and allow us to grow and further mature. It provides fuel for illustrations that we can share with others and hopefully others will benefit without having to experience the situation firsthand.



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The post-mortem to all of this is still up for discussion. I suspect that the book will not be published, not because of our failure to deliver assistance, but because the initiative was behind before we were ever asked to be involved. As with requirement specification engineering, the authors aren't always the right source or possess the right talents to do the job. Often they are the ones available to do the task, and not the ones who are best equipped. The most knowledgeable are consumed with keeping the particular business segment running.

It is my hope that you have learned something and that you continue to grow in the area of requirement specification engineering.

Some sources of training and guidance include;

Software Quality Engineering (SQE) - www.sqe.com

Writing Testable Requirements
By Richard Bender, RBT Inc.

ClearSpecs Enterprise - <http://www.livespecs.com>
Dr. David Gelperin

God Speed!

For more information on software evaluation (systematic testing, structured reviews and software audits) contact Certellus LLC at certellusllc@earthlink.net.