**Lessons Learned**

From the

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Prepared for

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# Shawn OBrien

## Technical Lessons Learned

### Document Templatization

Fortunately, we designed an attractive cover page for this first document. We then reused it for the remaining documents to maintain consistency and save time.

Additionally, we handcrafted, with a little help from Microsoft, a template document of type *.dotx.* This contained a templatized Microsoft Word style that included a title style and nine unique nested header styles. The modern approach viz. using various fonts and point sized and assorted shades of blue, in the end, improved readability.

We think the visibility cues, such as point size, though a bit non-intuitive at first, allowed the user to track subsections. Indeed, the authors benefited as well. We spent no time formatting headers and always had a good idea of our location within the nested levels.

### Preliminary Document Outline

The IEEE templates proved to be immensely helpful. They were however, not intended to fulfill the function of a classic, preliminary outline. More than once, I wish I had at least created a pencil and paper outline of the major components of a paper.

My most recent foray, the SDD, stands as a good example of how an outline would have made a difference. In section four of IEEE-1016, the specification expounded in detail upon how I should enumerate, identify and name all of the design elements (entities, constraints, attributes,…) I would allocate a distinct section for building this roster, had I the chance to do it over again. Then, in subsequent sections, I would reference the relevant design elements.

What did I actually do? I enumerated and identified the design elements within the first section devoted to a specific viewpoint. Then I had to break context and advise the reader to refer back to the beginning of that particular view to refresh their memory as to which proper name mapped to which design aspect.

I may restructure prior to the final compilation.

### Convergence

I am still OK with the whole Smart Core ™ creation. During those early stages with those menacing IEEE templates the whole concept helped to flesh out some of the more challenging design constraints one might find in a large real world system.

At the same time, at the risk of omitting some of the IEEE areas, there may have been enough to the plain, actual FAIQ project to leverage the documentation into getting a vision of what the whole bit of software is going to look like in the end. Instead, I did not really get an idea of what the program would be like until the Design Document.

The project planning document may have held more meaning had there actually been a team.

I think what I am trying to say is that I learned a tremendous lesson by not digging into the actual program logic earlier in the documentation process. No, the code would not write itself, but I would not have had the logic entanglements I ended up having while coding.

## Managerial Lessons Learned

### Explicit Leadership

We stumbled a bit at first for not explicitly anointing a leader and leader model during our first meeting. This was a mistake. It came down to Ben and me, as we had the broadest experience. Josh raised the topic at the first meeting, and we all commented, yet it all ended in a mild standoff between Ben and I. More of a stalemate really. I think we both not only over-estimated the scope and complexity of the project, but we also exaggerated our capacity. Overall, our perspective was off.

It was not until the SRS that it became apparent that Ben was quite busy. I, on the other hand, had much more time available. So, at one of our meetings, Josh mentioned that I was, in fact, the leader while he had the floor. This went uncontested, and as things were heading in that direction anyway, I thus became ordained as leader.

What have I learned? I learned that a headless body cannot function well. I learned that anarchy and chaos are compatible. Finally, I learned that a single leader for a small group is appropriate.

### Horses and Water

Given any horse, say, a very fine one that had just finished 50 laps around the barn, one might reasonably assume that the horse wanted a drink of water. However overwhelming the odds may be in this direction, there is certainly a very fair chance that the horse does not want a drink of water. The sweaty, four-legged beast may even refuse to wet its lips, despite the fact that you held a brand new tin bucket of the finest Parisian well water under its flaring nostrils.

The wild animal may decide to take another 50 laps around the barn and then eat an entire bale of hay. Well, at this point, one could bet one hundred dollars that that crazy horse would drink ten buckets of water. Now, what if this horse that pretends to be a camel decides to take a long, leisurely lap directly under the hot, blazing summer sun.

At least at this point, one could finally put their utter consternation aside, go home, and have some lunch. Maybe an extra-long ranch style lunch at that. One may decide to let that crazy horse just go ahead and wake up standing in a puddle of sweat, with cracked and bleeding lips and a scratchy throat. One might even take their time making their way back to the barn, perhaps whistling a little tune and walking aimlessly.

Obviously that mule of a horse will beg for that water, probably come rushing over and it will be nothing but whinny, whinny, whinny, I’m thirsty!

Sure enough, everything comes to pass. You hold the bucket out expectantly, perhaps a bit condescendingly. The only problem being that the horse is not thirsty. In fact, it playfully nuzzles into your shirt pocket and retrieves a long shank of dried beef jerky, then trots off to see if it can knock an apple out of the apple tree.

Well damn that nutty creature all the way to hell and back. Thoughts of forcing the darn thing into the river cross your mind. For a moment. Then the freeing realization comes like a bolt of lightning. So you set the bucket down right there within easy reach, decide to head into the barn, and make another set of horseshoes.

### Assertiveness

The next time I join a team, or a company, I plan to thoroughly interview all potential team members or co-workers. They should all have adequate time to do their share of the work. They should be motivated. Next time it will be different.

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