

# Multiple Wavelength Illumination and the Ego

At my last employer, Jim the marketing guy wanted an "enhanced feature" to an existing product ... the ability use multiple wavelengths simultaneously.

Well, I had intended to build in that feature right from the very start, despite the official stance that it was "not needed", in no small measure because I simply felt they were wrong. But I didn't quite get enough power out the power supply for it, and with that official "not needed" stance, I couldn't sensibly justify the three or four weeks extra work of a second attempt, so I let it go. In fact when I asked if they were confident it was not needed, "because if I don't do it now, this product will not be able to do it. The answer was "Yes. Completely confident, nobody ever uses multiple wavelengths simultaneously. In fact I'd like the user-interface to not even allow it."

Hmm, OK, that's pretty clear. I'll not waste any time on it then.

About a year later when that recently recruited marketing guy asks for it, of course the product won't do it. I suggest as my best advice, either a relatively significant revisit to do what I'd originally and a bumped product release (I estimated a couple of months work), or that we get on with the next generation product. The CEO, Nick, made a straight statement "We're not going to do a new release or a new model.". The only alternatives then were some "compromise" (syn. botch) operations that kind-of part-deliver what was wanted. I gave my six suggested feasible options in writing, keeping both the "revisit" and "next product" options on the list and asked "which do you want me to do?".

I received no answer ... for weeks and weeks, despite occasional nudges. Eventually I managed to persuade the CEO that we have a specific meeting to get the decision made. I reckoned that if I could get them in a room, I could get a proper decision out of them. When I asked for the meeting, I honestly believed that Jim would support my belief that we should do the job properly rather than one of the half-hearted compromises that Nick seemed to prefer. I stayed neutral, but would have agreed with Jim if he'd suggested either of the options to "do it properly" and that Nick would then agree.

Well we talked and talked, but no matter what I did or said, they seemed completely unable to make a decision. "Oh but if we do it this way it wont do that, and if we do it that way it wont do this, and I don't know if the customers will accept that". Frankly I found it all extremely embarrassing. I'm a professional engineer ... I make such decisions every day but here I can't even tease out half a consensus from them so I can make a proposal. More aggravating still was that I could have completed the "revisit" option months prior!

I try a different strategy. I suggest that "as we don't really seem to know either what the customers will accept, nor what will work for us as a company, I think we really need to talk with customers and put together a business plan for this".

"Boom!" Jim the marketing man explodes. "Oh you do, do you? You think we need a business plan for this, do you?", to which I reply "well, yes, I'm afraid I think we do as we clearly don't yet have a clear idea what we need to do".

To which he splutters out "Right; right; right; well I'll do one then". I never asked for him to produce one. I'd consistently been talking about "we". But he said it and the rest agreed, so the meeting ended ... still with no flaming decision!

And in Jim's usual style, he never actually produced any such business plan, not even the back of a cigarette packet type with which I'm fine if it's sane.

Many months later still one of the other members of the team finally made a suggestion of the form "well, I think that the customers will accept this ...". Nick agreed, Jim was absent as usual (OK, busy selling I presume), I still have preferred either of the fully working options, but this was a compromise, but decided by team. So I did it.

Three observations arise from this:

1. If Nick had just agreed the relatively minor rework in the first place we'd have had a fully working non-botch solution months earlier.
2. If Jim hadn't had an ego-driven blow up in that meeting, we should have had an agreed decision much(!) sooner.
3. If Jim had recognised that I was trying to get a sensible outcome, rather than presuming that I must have been attacking him personally, perhaps we'd have had the mid-term decision I'd still have a job and not not be suffering from the depression caused by the bullying.

That "revisit" option?

- Improve the efficiency of the PSU with later generation transistors and better performing inductors. That would need a partial layout.
- Reduce the amount of power put into the system by removing the thermo-electric device that proved to have been an unnecessary part, causing far more problems than it ever solved. That alone accounts for around half of the total power dissipation of the unit.
- Remove the non-allowed option on selecting more than one wavelength.
- Release the as a new iteration (pE-3) that offers full simultaneous, so there would have been no need for all of the option setting on controls, nor for the mathematics to scale the intensities and scale the scales of intensities.
- Simple! And it would have delivered what everyone really wanted! A good 18 months earlier!