

Don't Throw This Away, I



Being a pack rat is a common personality trait among engineers. You can go to almost any engineering office and see piles and piles of saved stuff. There are boxes of old calculations, mounds of design drawings, copies of reports going back to the days of George Washington. We engineers never know when we're going to need something, so it's important to save it. In triplicate. We are well stocked should a disaster strike. We may not have food or water, but at least we'll have plenty of old project documents to look over in the dark

The need to save things is ingrained in our training. We are taught from the first day of engineering school that we must start with a strong foundation. At the beginning of structural design class, we learn the equation and bending curve for a simple beam. The next day, the beam is not so simple. It becomes complex. But we had better save the references and equations for the simple beam, because the two-span continuous beam uses the same starting formulas. So, we engineers learn that every piece of information is built on some other piece of information. Just to be sure, we had better save everything.

I think a natural selection process is going on here. It's not just that learning to be an engineer trains us to be pack rats. It's that the natural pack-rat personalities gravitate toward engineering. I remember taking those open book examinations in school and then later the P.E. exam. It's good to be prepared for a test, but many engineers go way beyond what was required. For the P.E. test, some candidates arrive with multiple boxes of references. If permitted, they probably would drive in with a forklift and bookcases on which to arrange their texts. In an eight-hour exam, the smartest engineer can't possibly consult that many references.

However, I don't think that is the full story. It's more about engineering peer pressure, keeping up with the Joneses, the intimidation factor. The one who has the most references wins.

Of course, being a pack rat has its drawbacks. We can't save everything. There's a point when we have to throw stuff away, with the associated feelings of loss and regret. One of the more traumatic moments in an engineer's life is moving to a new home or office. This is when the rubber meets the road. The engineer is faced with sorting through years of accumulated things and deciding what to save and what to trash. A lot of the debris is junk, of course, but each piece of paper, each report, each obscure text, has some engineering emotional value. Parting is not easy.

Some of us look to computers to be our salvation. In the near future, we will live a paperless engineering society, with drawings and reports all electronically stored. In the present, however, we have twice as much paper and now a new source of clutter in stuffed hard drives and overflowing e-mail accounts.

Keeping all of this in mind, I decided to confront my failure. I resolved to use my excellent engineering analytical skills to identify the problem and solve it. I am a pack rat by nature, but I will choose not to live like one. I will throw out the lecture notes from high school, the interim conceptual design submittals that may have some relation to some work that I may do some day. I will fill up the recycle bin with old junk and achieve a spotless desk. I will turn over a new, uncluttered leaf.

Then, I got a phone call. A colleague remembered a report that I worked on five years ago. It was, I thought, an obscure report on a topic that I hadn't considered much since. But the caller thought the report was relevant to a project he was working on. He wanted a copy. I scoured what remained of my piles of reports. I was able to reconstruct parts of the report from old word-processing files (saved on my over-full hard drive), but I think I had thrown away the printed copies in my efforts to be organized.

So saving everything wasn't such a bad idea after all. You never know when it will be needed. The next day, I ordered a new bookcase.