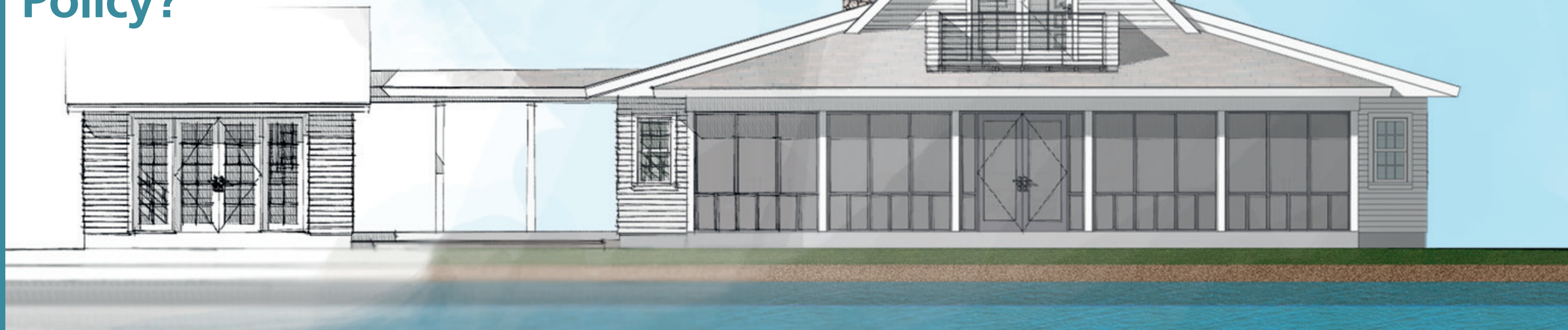


# What's Your Research and Development Policy?

“The ultimate freedom for creative groups is the freedom to experiment with new ideas. Some skeptics insist that innovation is expensive. In the long run, innovation is cheap. Mediocrity is expensive...”

Tom Kelley, General Manager of IDEO



I started blogging about ArchiCAD a little over a year ago. I wanted to promote myself as an ArchiCAD expert and I missed all the writing I had to do while in school. It also seemed like a nice escape from my day job. While I have fortunately stayed employed during the downturn, I have had to cope with a severe narrowing of my job duties and responsibilities. As the BIM manager for a residential firm in Minnesota, I spend more and more of my time helping other people with their projects and less and less on my own work. It provides job security, but can be quite mind numbing. The hope was that the blog would supplant the intellectual stimulation that has gone missing at the office.

I was not expecting the work that I did on the blog at [www.shoegnome.com](http://www.shoegnome.com) to reinvigorate me at my day job. But it did. It filled a huge gap in my career that I didn't know was missing: the interest and need for research and development. I think architects in general neglect the importance of research and development. If you look at other industries, everything from energy to automotive to retail to agriculture, all the important players spend time and effort on research and development. Engineers at 3M spend 15 % of their time on personal research; at Google it's 20 %. There is a clear value placed on exploration. While many of us architects might read about the latest products, study new wall systems, examine other architects' work, etc. how much of our resources do we devote to improving the way we work? For me this is the huge promise of BIM and ArchiCAD. How much time does ArchiCAD save you? What do you do with that extra time? You should be reinvesting in your processes.

It turns out that blogging every week about ArchiCAD is not easy. Not only does it take a lot of time to write worthwhile posts,

it also takes a lot of time to find topics to write about. Having to blog every week has made me hyper-aware of how I work in ArchiCAD. The pressure to write has encouraged me to explore deeper into the program. What started off as essentially academic research has resulted in better models, less 2D workarounds, cleaner construction documents, and new ways of working. Part of this is due to the shift from good enough solutions to solutions that I can coherently write about. For years I'd find answers to specific problems I was dealing with (say, why a wall was intersecting oddly with another wall) but stopped before understanding the general condition (there's a post at [www.onland.info](http://www.onland.info) that is the definitive explanation of skin priorities). But now I continue to explore. In short, I've upped my research budget.

I upgrade, you upgrade, we all upgrade.

Or at least you better. No one should be running ArchiCAD 6.5 on Windows 2000. It doesn't make sense, and it is a huge loss of value and wasted effort. No one should have to deal with plot-maker ever again. Ever. There is no acceptable argument as to why someone would still want to use it.

Having to deal with never-ending deadlines, projects that span years, and all the financial struggles of running an architecture firm, yearly upgrades of software can feel excessive and burdensome. Thoughts of upgrade costs, template revamps, and migrating old projects easily outweigh the excitement of flashy promotional videos. After learning about the big features, and wondering why we need them, we lose focus and ignore all the other tweaks between versions. We usually don't stop and reflect about the current version and previous upgrades. We don't compare how we worked in 2011 to how we worked in 2010 or 2009. We need to change

this. We need to think of new versions as a chance to reinvigorate our research and development momentum. We need to prevent stagnation in not only our designs but also how we design.

I'm very excited about ArchiCAD 15. A new release means new and improved features, though maybe not the tools you were asking for. Each release is an opportunity to rethink how one works and improve that process. If someone currently using version 14, 13, 12, etc. can't figure out how to make the upgrade pay for itself within the first few months of owning the software, then they're not trying hard enough. Quick example. When I jumped from version 9 to version 11, I started using the sketch rendering engine. A lot. I loved it. I thought "How did I ever live without this? It's so easy to put 3D on my cover sheet. Clients will love this." My process and work improved. I took a step towards the future. When I jumped to version 14 I figured out how to use the 3D Document tool to get closer to the aesthetic I was chasing. The 3D Document tool was faster, cleaner, and more flexible. I wasn't expecting or looking to replace my rendering solution. But by continuing to search and explore I changed my ways for the better. I thought "How did I ever live without this? It's so easy to put 3D anywhere. Clients and contractors will love this." My process and work improved.

Exploring new versions isn't just about learning the new tools. There is plenty of room for improved processes and increased efficiencies by shedding bad habits in ArchiCAD. Some of these habits are from how we were taught and some from the version we learned on. I still know holdouts who don't use the Explore Model method of navigating in 3D, even though we've had that option since version 10. Don't put off learning the features designed to

make you work more efficiently. Embrace the oriented views from v14 and the 3D editing planes in v15. As the program evolves, we need to reevaluate how we work. Do we still need to hold down shift? Is it time to get used to the tracker? Are we still hanging on to old key commands from v8.1? Some are worth keeping. I want to be able to press 'L' and get polyline. That seems legit. But just as often, these habits are wasting our time and holding us back. With the arrival of the tracker, I had to give up using numbers as key commands. The arrow tool became CMD+1 instead of just 1, the marquee tool became CMD+2. At first I was annoyed, but now I can barely remember the old ways. Many improvements in efficacy come from just getting rid of our bad habits. Breaking these habits is hard and it sucks. But if we don't, we will be left behind.

As we leave the global recession, the firms that have spent the downturn analyzing and improving the way they work are going to come out fast and strong. Those firms that assume the old ways will work again once the economy improves will wonder why the recovery is affecting everyone but them. Whether you choose to share your research and development by blogging, being active on the ArchiCAD-Talk forum, posting on LinkedIn or Facebook, or just with your coworkers, take the need to develop your ArchiCAD skills seriously. The more you can innovate in ArchiCAD, the more you can innovate in your designs.

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