Amazing Desktop Applications

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We could better call this the "guest editors' lament" than the "guest editors' introduction." Why? The theme of this issue of CG&A is "Amazing Desktop Applications." Potentially, about 1,000 applications articles suit the theme. This issue features two of them—a refereed article by Tom Calvert and a staff-assisted short report by Marc Rioux and Tony Bird. So what happened to the rest?

This special issue came about with the encouragement of the IEEE CG&A Editorial Board following our previous successful applications-oriented, multimedia issue in July 1991. Appropriately enthused, we got commitments for articles from about two dozen prospective authors, including those we sought out and those who responded to our call for papers. To our dismay, authors dropped out, failed to complete manuscripts, and in one case even withdrew the article after submission. In the end, we had only a half dozen completed articles. Then the referees took their toll. You hold the single survivor and the staff-assisted report in your hands. Which makes the real story the other 998 articles. Where are they?

Unfortunately, the other 998 potential suitable articles exist only in the minds of busy people. These people know:

- Which real deployments of technology will interest readers
- What problems need solving
- Why a particular solution beat out other candidates
- How easy or hard it was to complete the application
- What they would have done differently the next time

Why didn't we get these other 998 articles? Simply put, busy people don't take time to write. Our point, however, is also simple. If you don't write about your successful or unsuccessful application, how can others learn from it? On a wall of the Memorial Union at Iowa State University, it is written, "Learn from the mistakes of others: you don't have time to make them all yourself."

Why don't applications articles get written? Historically, they "don't get no respect." In the eyes of prospective authors, the world of refereed publications seems more receptive to academic papers describing formal technical or scientific results. This subject matter is more objective and its publishability more readily assessed. Applications articles, by contrast, are considered "soft" and are often viewed as derivative of previous work—"engineering, not science."

But academic papers all too often reach only a small, specialized audience. Meanwhile, the broad readership clamors for articles that are more accessible, more practical, more relevant to their own work. We hope that you, as potential writers of applications articles, realize just how valuable CG&A readers consider them. Perhaps conceptual articles are more timeless, or more interesting from some perspectives. However, realize that good ideas are easy and risk-free. Implementing them is hard and risky. The lessons learned from this encounter with reality make applications articles valuable.

Such articles are so valuable that the staff of CG&A went out of their way to ensure that a potentially good one got printed (albeit a short version). Marc Rioux was as busy as the rest of us, but created a draft describing the system he was working on. When we found the draft through our network and forwarded a copy to Los Alamitos, a staff writer was assigned to provide the extra effort needed to get the report to you.

Why do applications papers get rejected by reviewers? While too few get written, it seems that fewer still are deemed acceptable for publication. But, in most such cases, authors should hold themselves responsible. We call this the "here's what we did" problem. The most common mistake authors make is to limit themselves to describing only what they did. Much more interesting is "here's what we learned" and "here's what actually happened when real people used it" and "here's how we refined the system based on experience gained." Articles that only say "here's what we did" don't say whether the systems really work and why. Therefore we get no insight into how to build other systems based on these experiences. Did your work fall within a very narrow range of possible solutions? If so, describing it is very important. Or could any number of alternatives have worked? In that case, it's not so important. The key is to extract the essential issues, implications, principles, mistakes, and open questions. Provide actual results and describe your experiences using the system. Draw conclusions about the system design. We assert that the resulting applications article will be well regarded by reviewers (particularly if they are us!).

Without looking, what is the title of this magazine? Did you guess IEEE Computer Graphics? The founders of this publication knew the importance of computer graphics applications, hence the title to remind us with each issue. We aren't going to give up, either. Don't wait for a special issue call for papers or a phone call to prompt you to write. The trick is to write when you have just completed the application. Then, as the application is deployed, you can revise the lessons learned, based on user feedback.

Writing applications articles might not get you fame and free pizza, but it will endear you to the readership and prove that you took time to give something valuable back to our industry.

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